Measuring Financial Reporting Quality:

An Approach Based on Qualitative Characteristics

A thesis submitted in fulfilment of the requirements for the Degree of

Doctor of Philosophy in Accounting

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2020

ABSTRACT

I have developed a Financial Reporting Quality (FRQ) measurement index within the scope of the 2018 Conceptual Framework for Financial Reporting of the International Accounting Standards Board (IASB), and I used it to measure FRQ of annual reports from Sri Lankan listed companies. My study is motivated by i) the seminal work of Beest, Braam, & Boelens (2009) who used Qualitative Characteristics (QCs) to measure FRQ, ii) the lack of a comprehensive measurement tool from which to quantitatively derive the degree an annual report complies with the postulated (by the IASB) characteristics of decision-useful information, and iii) the different classification interpretations of QCs and the inconclusive results about the perceived importance user groups ascribe to the QCs within decision usefulness theory: useful to whom and useful to make what decisions.

A first important realisation to make is that QCs and FRQ are latent constructs, which immediately suggest that the relationship between QCs and FRQ may be complex, non-linear and hierarchical. The process of developing the FRQ measurement index is then formulated through Research Question (RQ) 1, in which I use three steps. In Step 1, I searched the literature to identify measures for the QCs, and I obtained 54 so-called sub-information items under 17 information dimensions. In Step 2, I surveyed Sri Lankan investment (N=235) and lending (N=214) decision-makers on the usefulness of the identified sub-information items to their particular decision roles, and the respondents validated the selection identified in Step 1. In Step 3, the structural relationships between the 54 sub-information items, the 17 information dimensions, the 6 QCs and FRQ were tested by confirmatory factor analysis using SmartPLS. The factor analysis results revealed that the 54 sub-information items are measures of the 17

information dimensions and that they each factorise statistically satisfactorily with one of the 6 QCs.

The 2018 Conceptual Framework postulates a particular 2-group (fundamental and enhancing) classification the 6 QCs belong to. I thus have tested the postulated classification and also formed and tested 2 alternative models of how the 6 QCs affect FRQ. The results revealed that enhancing QCs affect FRQ indirectly through fundamental QCs, as postulated by the Conceptual Framework, but importantly they also make strong and significant direct contributions to FRQ. In particular, understandability has the highest direct contribution to FRQ from all 6 QCs. This finding challenges the IASB 2-group classification. A further utility of the 3 models, which in essence are variants of an FRQ measurement index, is the explicit relative contributions obtained that each of the QCs makes towards FRQ.

In supporting the development and validation of the FRQ measurement index, in RQ2, I also investigated several secondary research questions. I surveyed Sri Lankan investing (N=235) and lending (N=214) decision-makers to examine their use of annual reports, their perceived importance of QCs, and their perceived impact of International Financial Reporting Standards (IFRS) on FRQ. My results revealed that on average and ahead of 'annual reports', lending decision-makers rate highest 'the direct communication with clients', and investment decision-makers rank 'stock market publications' as the prime source for investment decisions; within annual reports, both types of decision-makers identified financial statements as the most useful sections and both groups stated that the main factor that restricts the usefulness of annual reports is the delay in publishing annual reports after year-end. When asked directly, both groups challenged the IASB's current classification of QCs into 'fundamental' and 'enhancing', and both groups identified understandability as the most important QC, followed by timeliness.

Relevance ranked sixth and last, surprisingly. These results complement the findings from RQ1. With respect to the impact of IFRS adoption in Sri Lanka in 2012, both groups believe that FRQ improved compared to the earlier Sri Lanka Accounting Standards (SLAS) reporting regime.

In RQ3, I also put in practice the derived FRQ measurement index by assessing the FRQ of annual reports of 53 listed Sri Lankan companies for the years 2010, 2014 and 2018. I find that Sri Lankan companies recorded on average an FRQ of 56% in 2010, rising to 61% in 2014 and to 66% in 2018. These differences are statistically significant, which allows me to conclude that the FRQ of Sri Lankan entities improved after IFRS adoption in 2012 compared to the period before adopting IFRS. This result complements the finding in RQ2. I identified that the total number of pages, the size of the firm as measured by total assets, and her market capitalization all positively correlate with the level of FRQ.

Through my work, I have made several useful contributions: I challenge the classification of QCs as fundamental and enhancing, which should also lead to a re-examination of the interpretation various authors of accounting textbooks give to this issue in the corresponding 'IFRS and Conceptual Framework' chapters; my results further challenge the widely held assumption that relevance and faithful representation rank supreme in the importance ranking among the 6 QCs; next, I provide numerical equations with which i) users can measure, i.e. calculate, FRQ and the change in FRQ over time, and ii) the IASB can measure to which degree their objective has been achieved of setting standards intended to improve the quality of decision-useful information for investors and lenders. While the processes for the derivation of an FRQ measurement index apply generally, the data have been collected and obtain within the Sri Lankan context. Thus, I invite other researchers to use, test and validate the measurement of FRQ in jurisdictions of their interest.

ACKNOWLEDGEMENT

In my PhD journey, a number of people have contributed in various ways. I express my sincere appreciation and thanks to my chief supervisor, Associate Professor Michael Falta, for his encouragement and invaluable academic guidance. Also, I appreciate the contributions given by my associate supervisors, Dr Rob Vosslamber and Associate Professor Richard Fisher.

I also thank my academic colleagues at the University of Kelaniya, Sri Lanka and all my friends and relatives who encouraged and supported my studies.

I wish to pay tribute and gratitude to my parents for providing me with a strong educational background that enabled me to achieve the highest level of academic qualifications. I am indebted to my family members for their incredible moral support, patience and dedication of their time for me during my PhD period. Hence, this thesis is dedicated to my loving parents, wife, daughter and son.

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Chapter 1

Research Introduction

1.1 Research objectives and research questions

In this thesis, I develop an index for measuring the Financial Reporting Quality (FRQ) within the context of decision usefulness and based on the Conceptual Framework for Financial Reporting[1] of the International Accounting Standard Board (IASB). I then measure the FRQ of annual reports, pre- and post-IFRS (International Financial Reporting Standards) adoption, of Sri Lankan entities using the developed FRQ measurement index.

The IASB supplies the international business world with IFRS which have been adopted by 166 countries[2], as of 2020. Important aims in the development of financial reporting regulation include ensuring decision usefulness to stakeholders, international comparability, transparency, accountability and efficiency to financial markets around the world.[3] This is significant because the literature (e.g., Abeysekera & Guthrie, 2005; Bushman & Smith, 2001; Chatterjee, 2008; Chenhall & Juchau, 1977; De Zoysa & Rudkin, 2010; Haller & Walton, 2003; Mirshekary & Saudagaran, 2005; Naser, Nuseibeh, & Al-Hussaini, 2003) suggests that the general purpose financial reports are critical communication channels between a firm and their stakeholders, in particular, in the context of economic decision-making. In a more general context, financial accounting regulation attempts to alleviate the agency problem in that annual reports reduce the information asymmetry between firm and stakeholders, and in doing so, the risks that impact a firm's cost of capital (Armstrong, Barth, Jagolinzer, & Riedl, 2010; Barth, Landsman, & Lang, 2008; Bhattacharjee, 2009; Jermakowicz & Gornik-Tomaszewski, 2006).

[1] Hereafter referred as Conceptual Framework.
[2] See https://www.ifrs.org/use-around-the-world/use-of-ifrs-standards-by-jurisdiction/
[3] See https://www.ifrs.org/about-us/who-we-are/

The preparers of general-purpose financial statements (firms) collect and disclose relevant financial information about the financial position, performance, and cash flows within their firm. These financial statements are part of the annual report, which provides a wider picture of the firm and contains financial as well as non-financial information.

Because each firm prepares their annual report independently and the IFRSs allow choice, the question of FRQ arises, and also what 'quality' within FRQ is understood to be with respect to achieving the goal of providing decision-useful information. Aspects of the FRQ question have naturally attracted academic research. From a general standpoint, Bushman & Indjejikian (1993) and Fung (2014) suggest that FRQ is an essential aspect of the financial reporting process. Based on a more detailed discussion about FRQ, Cheung, Evans, & Wright (2010) state that financial reporting is of high quality if it allows users to make economic decisions and focuses on their needs. Similarly, Bryce, Ali, & Mather (2015) and Kaplan, Roush, & Thorne (2007) note that high-quality financial reports enable financial statement users to make decisions on resource allocation opportunities. According to the IASB, their objective is to provide ''a single set of high quality'' (Pacter, 2017, p. 9) accounting standards because they recognise that *high-quality* financial information is the lifeblood of capital markets.[4] The information provided by firms through financial reporting is viewed as of quality when it is decision-useful to users. The IASB's Conceptual Framework focus on the two aspects of decision usefulness information in line with decision usefulness theory as suggested by Staubus (1977) that focus of providing relevant information – useful to make what decisions? – to the relevant decision-makers – useful to whom?

[4] See https://www.ifrs.org/about-us/who-we-are/

Within the references above that discuss 'quality' in financial reporting, the definitions are vague and do not allow distinction between different levels of quality. Similarly, the Financial Reporting Council, UK states that "preparing a good quality annual report that communicates useful information effectively is a major intellectual and logistical challenge" (FRC, 2009, p. 1). Williams & Ravenscroft (2015) also argued that decision usefulness serves more as a legitimating myth and is not measurably attainable.

In the public arena and business practice, FRQ often gets highlighted in connection with negative headlines that connect it with financial crises, corporate collapses and disclosure problems. Herath & Albarqi (2017) have linked accounting scandals in the 21st century (e.g., Enron, WorldCom, Sunbeam, Parmalat, Global Crossing, Halliburton, and Nicor Energy) to weaknesses in FRQ. Babatunde, Akeju, & Malomo (2017) and Cheung et al. (2010) note that financial crises diluted investors' trust into the information provided within annual reports and the FRQ of those annual are mutually interlinked. Fung (2014) is more explicit about the causal chain and states that financial crises arise from the dearth of quality in financial disclosure. Healy & Palepu (2001) noted that high FRQ supports effective decision-making because it enables financial statement users to evaluate resource allocation opportunities. With respect to IASB's financial reporting objectives, Cheung et al. (2010) suggest that such scandals and financial crises challenge the standard setters to provide regulations that allow firms to disclose high quality, transparent and comparable information that is decision-useful to stakeholders.

In summary, the importance of FRQ in relation to measuring how far the goals of the IASB have been achieved and the impact of FRQ in practice create an interesting research situation. With the focus on the former, the IFRSs are based on the IASB's Conceptual Framework, and within the Conceptual Framework on Qualitative Characteristics (QCs) of

financial information (IASB, 2010, p. 16; 2018, p. 14). These QCs are the *first principles* which need consideration when *measuring* (fundamental) FRQ. This is not to be confused with academic research which uses *secondary information* from which a (derived) FRQ is being *deduced* such as the value relevance and accruals' model approaches (cf. Chapter 2). As I will show below, research into the FRQ based on the fundamental principles has, to date, not provided an acceptable holistic quality assessment index. Filling that gap, this thesis focuses on developing an index based on examination of how the QCs can be employed to measure FRQ in terms of achieving decision usefulness for both main groups of capital providers: investors[5] who buy, sell or hold equity and debt instruments, and lenders[6] provide loans and other forms of credit to customers. The FRQ measurement index is a tool which allows to i) assess the degree of achievement of IASB's objective that IFRSs improve the quality of financial reporting, and ii) assess an individual firm's FRQ of their financial statements, which I test using a sample of Sri Lankan listed entities pre- and post-IFRS adoption. Putting more formally the development of the FRQ measurement index and its application to annual reports of Sri Lankan entities, I obtain the following three Research Questions (RQ):

RQ1: How can an FRQ measurement index be developed based on QCs which accommodates the decision-making scenarios of lenders and investors?

First, one has to appreciate that FRQ is a latent construct which will dictate aspects of my methodology. Within this understanding, the research task is how to develop an FRQ measurement index which is based on QCs and allows accounting for both decision-making scenarios of both investing and lending. (Chapters 3, 7, and 8)

[5] For reasons of readability, I often use in my thesis the short-term 'investor' to always mean 'investment decision-maker'. That is, I use a word that expresses a job role (investor) to mean a decision-role (investment decision).
[6] Equivalently to footnote 6, I use 'lenders' to mean 'lending decision-makers'.

RQ2: How do the perceptions and practices of users impact on the development of an FRQ measurement index?

Related to RQ1, the second research task is to examine the usefulness of information dimensions (i.e., latent constructs which are used to measure individual QCs) and sub-information items (i.e., measurable information items of individual information dimensions) that I used to assess QCs in developing an FRQ measurement index with respect to decision-making scenarios of lenders and investors, and their perceptions on (Chapter 7):

- the frequency of using annual reports;
- the importance of various sources of information;
- the importance of various sections of annual reports;
- the usefulness and adequacy of information;
- the factors that restrict the use of annual reports;
- the importance of the QCs; and
- the impact of IFRS on FRQ.

RQ3: How does the FRQ measurement index contribute to providing insights into financial reporting research related to decision-useful information in specific contexts (e.g., Sri Lanka)?

Based on RQ1 and RQ2, the third research task is to apply the FRQ measurement index in the Sri Lankan reporting environment and examine the FRQ in annual reports of Sri Lankan entities. Relatedly, I investigate whether or not the FRQ improved after the mandatory adoption of IFRS reporting in Sri Lanka in 2012 (Chapter 9).

1.2 The IASB Conceptual Framework(s) and QCs

The predecessor of IASB, the International Accounting Standards Committee (IASC)'s framework for the preparation and presentation of financial statements (IASC, 1989) recognized QCs as essential qualities of information:

> "An essential quality of the information provided in financial statements is that it is readily understandable by users …" (IASC, 1989, para. 25), and
>
> "Information has the quality of relevance when it influences the economic decisions of users …" (IASC, 1989, para. 26)

Later, the IASB Conceptual Frameworks (IASB, 2010, 2018) state that the purpose of "financial reporting is to provide financial information about the reporting entity that is *useful* to existing and potential investors, lenders and other creditors in making decisions" (IASB, 2010, p. 9; 2018, p. 8). In particular,

> "The Conceptual Framework provides the foundation for standards that contribute to transparency by enhancing the international comparability and *quality* of financial information, enabling investors and other market participants to make informed economic decisions" (IASB, 2018, p. 6, italics added),

and,

> "If financial information is to be *useful*, it must be *relevant* and *faithfully represent* what it purports to represent" (IASB, 2010, p. 16; 2018, p. 14, italics added).

Consequently, the 2018 IASB Conceptual Framework links the quality of reporting to relevance and faithful representation, which are the so-called fundamental QCs. In different

words, the IASB states that the QCs enhance the quality of financial reporting and companies who comply with IFRS improve, so it is argued, the usefulness of their financial reports, and thus the quality of the information provided.

The researchers (e.g., Abedana, Omane-Antwi, & Oppong, 2016; Agienohuwa & Ilaboya, 2018; Agyei-Mensah, 2013; Braam & Beest, 2013; Beest, Braam, & Boelens, 2009; Chakroun & Hussainey, 2014; Dimi, Padia, & Maroun, 2014; Jerry & Saidu, 2018; Masruki, Hussainey, & Aly, 2018; Mbobo & Ekpo, 2016; Yurisandi & Puspitasari, 2015) used the QCs as proxies for assessing decision usefulness but did neither go as far as considering the influence of the classification of QCs in assessing decision usefulness nor what the contributions of the individual QCs towards decision-useful information are. Some of the previous studies (e.g., Armstrong et al., 2010; Daske & Gebhardt, 2006; Jonas & Blanchet, 2000; Kythreotis, 2014; McDaniel, Martin, & Maines, 2002; Parry & Groves, 1990; Schipper & Vincent, 2003) discussed specific aspects of financial reports linked to individual QCs. However, they neither assess the FRQ on a holistic basis nor in relation to the particular decision-making scenarios of the stakeholders which the IASB addresses within the objectives of the Conceptual Framework.

Considering that quality is claimed not to be readily measurable (Imhoff Jr, 1992), which corresponds to positing that FRQ is a latent concept (Baba, 2011), the inherent qualitative nature of QCs furthers the difficulty of observing and measuring these concepts (Beattie, McInnes, & Fearnley, 2004; Nobes & Stadler, 2015). As for the QCs alone, their inter-relatedness opens a debate on the possible combinations of QCs that optimize the information based upon the FRQ yields decision usefulness.

Another concern that needs examination when using QCs to assess FRQ is the classification of QCs. Over the last 30 years, the IASB has continuously developed Conceptual Frameworks in which the QCs were defined and classified differently. For example, as early identification of QCs, the Corporate Report of the Accounting Standards Steering Committee of Institute of Chartered Accountants in England and Wales (ICAEW) in 1975 identified seven QCs (relevant, understandable, reliable, complete, objective, timely and comparable) as desirable for the fulfilment of their fundamental objective of communicating decision-useful measurements (ICAEW, 1975). In 1989, the IASC published a Conceptual Framework with four principal QCs (relevance, reliability, understandability and comparability) together with a further 6 secondary QCs which were discussed under each principal QC. Then, the 2010 framework (IASB, 2010, p. 15) revised the QCs and assigned them into two groups: the two fundamental QCs of relevance and faithful representation, and for enhancing QCs of comparability, understandability, timeliness and verifiability. The Conceptual Framework was further revised in 2018, with modifications to the QCs emphasizing "prudence" as another sub-component of faithful representation while relevance and faithful representation remain unchanged as the fundamental QCs (IASB, 2018, p. 14).

Realising that any annual report contains information that consists of all 6 QCs at different levels, i) the inter-relatedness of individual QCs requires a trade-off between them to meet the objective of financial reporting, and ii) "the relative importance of the QCs in different situations is a matter of professional judgment" (IASC, 1989, p. 13). The 2010 version of the IASB's Conceptual Framework also states that "one enhancing QC may have to be diminished in order to maximize another QC" (IASB, 2010, p. 22). However, the IASB's Conceptual Framework guidelines are ambiguous on the trade-off and inter-relationship between the fundamental and enhancing QCs: fundamental QCs make information useful and enhancing

QCs enhance the usefulness of information that is relevant and faithfully represent. The IASB states that "The usefulness of financial information is enhanced if it is comparable, verifiable, timely and understandable" (IASB, 2018, p. 14). Also, the framework is unclear about whether each enhancing QCs contributes to both fundamental QCs, to all or to only some of the other enhancing QCs. The relevant text states that "The enhancing qualitative characteristics may also help determine which of two ways should be used to depict a phenomenon if both are considered to provide equally relevant information and an equally faithful representation of that phenomenon" (IASB, 2018, p. 17).

Even though the IASB postulates that fundamental QCs are more important than enhancing QCs, a number of studies (e.g., Naser et al., 2003; Stainbank & Peebles, 2006; Tasios & Bekiaris, 2012) offer inconclusive results on the perceived importance of QCs. Other authors (e.g., Kythreotis, 2014; Rahman, 2009; Smith, 1996) focus on examining the use of the QCs from the perception of decision-makers and provide mixed results on to the question of QC trade-off.[7]

It should also be mentioned that accounting textbooks and accompanying presentation materials, read by thousands of students every year, offer different interpretations of the classification of QCs, particularly when the authors provide graphical presentations of the QCs. For example, referring to the IASB and Financial Accounting Standards Board's (FASB) QCs, Kieso, Weygandt, & Warfield (2019, p. 2-7) identify that enhancing QCs improve the usefulness of information through fundamental QCs. Other textbooks (e.g., Atrill, McLaney, & Harvey, 2014, p. 5; Hoggett et al., 2015, p. 444; Weygandt, Kimmel, & Kieso 2010, p. 129) recognise that fundamental and enhancing QCs are distinctly different sets of QCs and that

[7] Those studies are discussed in Chapter 2.

fundamental QCs are more important than enhancing QCs in improving the usefulness of the information. Thus, the IASB being vague on this issue allows different hierarchical interrelationships of the QCs to be suggested. On the other hand, it creates room for research, which no study to date (as far as I am aware of) has embarked on to investigate: how do the QCs contribute to FRQ based on the decision scenarios investors and lenders find themselves in?

1.3 Sri Lanka, IFRS and FRQ

The Conceptual Framework of the IASB and the IASB objectives, as discussed in Section 1.2, express implicitly the desirability of constructing a comprehensive measurement index to assess the FRQ considering QCs as measures of decision usefulness. Hence, the focus so far has been on the relationship between the IASB Conceptual Frameworks, the QCs, the IFRSs, FRQ and decision usefulness for investors and lenders. That is, the discussion has been free from any geopolitical and socio-economic contexts. However, it must be realised that the implementation of the IFRSs, the application of the FRQ measurement index, and the disclosure of financial information is made by firms which are influenced by various geopolitical, historical and socio-economic factors. It is a matter of geopolitical history that developed countries drive the development of financial reporting regulations with a focus on their commerce contexts and not necessarily that of developing countries. Studies that consider the impact of the adoption of IFRS have mainly focussed on developed countries and especially the European Union (EU) jurisdictions (Ballas, Skoutela, & Tzovas, 2010; Nijam, 2016). Therefore, I take my thesis (via RQ3) into the domain of applied research in which I use the FRQ measurement index in a Sri Lankan context and within the corresponding country-specific factors, including the developing economy.

The first general point to make is about the difference between reporting backgrounds within the IFRS context encountered in developed and developing economies' financial environments. Jaggi & Low (2000) point to further differences such as legal systems, taxation, sources of finance, inflation, politics, colonial history, culture, and shape and diversity in accounting practices which give rise to different levels of disclosure. Furthermore, Poudel, Hellmann, & Perera (2014) support that social, political, economic, and cultural factors influence professional judgments of accountants. These differences across countries may lead to varying explanations and applications of reporting requirements. These country specific factors are severely embedded in the accounting environment and act as a challenge to the adoption of IFRS internationally.

Tyrrall, Woodward, & Rakhimbekova (2007) argue that IFRS was initially implemented in developed countries but was increasingly being adopted by developing countries. They flagged that IFRS may potentially be overlooking the concerns of whether IFRS is appropriate or relevant to such countries. For example, the South-Asian economies adopted IFRS due to international donor organizations' pressure (Poudel et al., 2014; Irvine, 2008; Zaman & Rahaman, 2005) regardless of the suitability of those standards to their country settings. Chua & Taylor (2008) concur and argue that diffusion of IFRS is due to political and social aspects of globalisation than the assumed economic benefits of convergence with international accounting standards. Responding to the contemporary global developments on financial reporting (Nijam, 2016) and the influence of the World Bank (Rahman, 2004), Sri Lanka fully converged to IFRS with effect from January 1st, 2012, under the label of Sri Lanka Financial Reporting Standards (SLFRS). The adoption of IFRS was encouraged to improve the quality of reporting in Sri Lanka (Rahman, 2004).

Compounding above problem is that some studies (e.g., Joshi, Yapa, & Kraal, 2016; Nijam, 2016; Poudel et al., 2014) note there to be a lack of research within developing countries concerning financial reporting. Zehri & Chouaibi (2013) concur there is a limited number of studies about IFRS adoption in developing countries when compared to research applied to developed countries. Joshi, Yapa, et al. (2016) also emphasised the importance of investigating the impact of IFRS in the post-adoption period to understand the IFRS adoption experience in developing countries.

Closer to the theme of my thesis, Kimeli (2017), Nejad, Ahmad, Salleh, & Rahim (2017) and Samaha & Khlif (2016) highlighted the insufficiency of studies in developing economies that focus on IFRS and FRQ. Conceivably, the quality of financial statements prepared under IFRS standards in developed vs developing economies will also be questioned and has been in the literature. Related to this aspect, Jeanjean & Stolowy (2008) state that the adoption of IFRS has advantages such as easy comparability of performance across different economies, the competition for international funds and to make efficient international capital markets, to result in a lower cost of capital for firms. Nevertheless, again, these may impact differently on developed and developing economies. It is still questionable whether those benefits are applicable in developing economies similarly to developed economies. Some of the main reasons are that in many developing economies the accounting profession is not in a position to regulate financial reporting effectively, and they struggle to enforce accounting standards (Jun Lin & Wang, 2001; Samaha & Khlif, 2016). The only study I have found that discusses these pros and cons within the Sri Lankan IFRS adoption context is Nijam (2016), who provides evidence on the perceived impact of IFRS adoption and how it relates to firm characteristics. He conducted the study with 62 companies listed in the bank, finance and insurance sector at Colombo Stock Exchange (CSE), using questionnaires from financial and

accounting professionals. Respondents believed that IFRS improve FRQ, though IFRS also caused increasing costs of financial reporting and do not guarantee capital market benefits to the firms. He further revealed that improved FRQ is positively correlated to firm size and profitability.

Nagirikandalage & Binsardi (2017) note that Sri Lanka was affected by unplanned changes in business policies, changes in governments with two different political ideologies and civil war which lasted from the 1980s to 2009. These have led to being difficulties to maintain stability in Sri Lankan accounting and economic systems over the past few decades. Athukorala & Jayasuriya (2013) noted that Sri Lanka had affected the country's information infrastructure and information systems in relation to the post-conflict development challenge. Also, they further argue that if a developing economy such as Sri Lanka is to adopt a developed economy's accounting systems, the implementation of those may not be optimal, because Sri Lanka has a lower financial literacy rate, low adoption of IT, economic imperfections, and other social, political and cultural differences. Therefore, the quality of financial reports prepared under IFRS in Sri Lanka might vary from other developed and developing economies.

The second issue that motivates conducting the study in Sri Lanka is the emerging need for quality information. After significant political transformation in 2015, the government established the Financial Crime Investigation Division (FCID) in 2015 with the objective of investigating major financial crimes made by the government, corporations, and private entities (e.g., frauds, illegal financial transactions). Further, the 19th amendment to the constitution implemented in 2015, and the Independent Audit Commission that was established providing legal assistance for financial investigations provided wake-up calls to Sri Lankan entities about good governance and the responsibility to provide reliable information to users. Besides, large

scale local business collapses such as Pramuka Bank in 2002, Golden Key in 2013, and Edirisinghe Trust Investment, Central Investments and Finance PLC (CIFL), Alpha Credit Card Company Limited and the Standard Credit Finance Limited in 2019 led Sri Lanka to focus more on the role to provide quality information.

Third, I note that scholars, for example, Daske, Hail, Leuz, & Verdi (2008) and Lourenço, Branco, & Castelo (2015) argue that IFRS improves the quality of information, transparency, comparability, and reduces the cost of capital which ultimately leads to improving Foreign Direct Investment (FDI). Gordon, Loeb, & Zhu (2012) reported that IFRS adoption has a more considerable increase in FDI in developing economies compared to developed economies. Pricope (2016) stated that convergence with IFRS eases access to foreign capital. These findings suggest that the adoption of IFRS in Sri Lanka might have a more significant increase in FDI. Conversely, according to the World Bank economic data, Sri Lanka reported a decrease of FDI after the period of IFRS[8] compared to the period before IFRS adoption, providing an indication that IFRS had not brought Sri Lanka the hoped-for benefits. Therefore, it is worth examining how the adoption of IFRS impacts on improving the FRQ in the Sri Lankan context.

Finally, the fourth reason that justifies researching the country context is that South Asian countries are regarded by some as highly corrupt in financial, economic, and social stance. The 93rd ranking is held by Sri Lanka (India 80, Bangladesh 146, and Pakistan 120) in the world corruption perception index 2019.[9] Accounting corruption[10] is likely to accompany

[8] Aaverage of FDI as a percentage of GDP, before 5 years of adoption is 1.39% and 5-years average after the adoption of IFRS 1.08%. According to the World Investment Report, FDI – US$941M in 2012, US$680M, and 756 in 019 (UNCTAD, 2020, p. 240).
[9] See https://www.transparency.org/en/countries/sri-lanka
[10] Accounting corruption includes illegal cash payments, misallocation of assets, and other inappropriate economically driven transactions (Houqe et al., 2012).

socio-political corruption due to the low investor protection environment (Houqe, van Zijl, Dunstan, & Karim, 2012). Therefore, unlike developed economies, developing economies are characterized by widespread corruption, the weak rule of law, inadequate investor protection, and reduced financial transparency (Houqe & Monem, 2016; La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 2000). Houqe & Monem (2016) identified that adoption of IFRS plays a role in reducing perceived corruption and note that the length of IFRS experience and the quality and extent of the disclosure is negatively related to perceived corruption level in a country. They noted that relative to developed economies, developing economies benefit more from IFRS experience in lowering perceived corruption. Therefore, Sri Lanka provides a unique research environment with different IFRS expectations, relatively high corruption and decreasing FDI, in which I can test IFRS's capacity to improve FRQ.

1.4 Flow and organisation of the thesis

In Sections 1.1 to 1.3, I have argued what the research questions and the research background of this thesis are. In this section, I discuss how I am going to conduct my research and provide an overview in Figure 1-1 in the form of a four-step process.

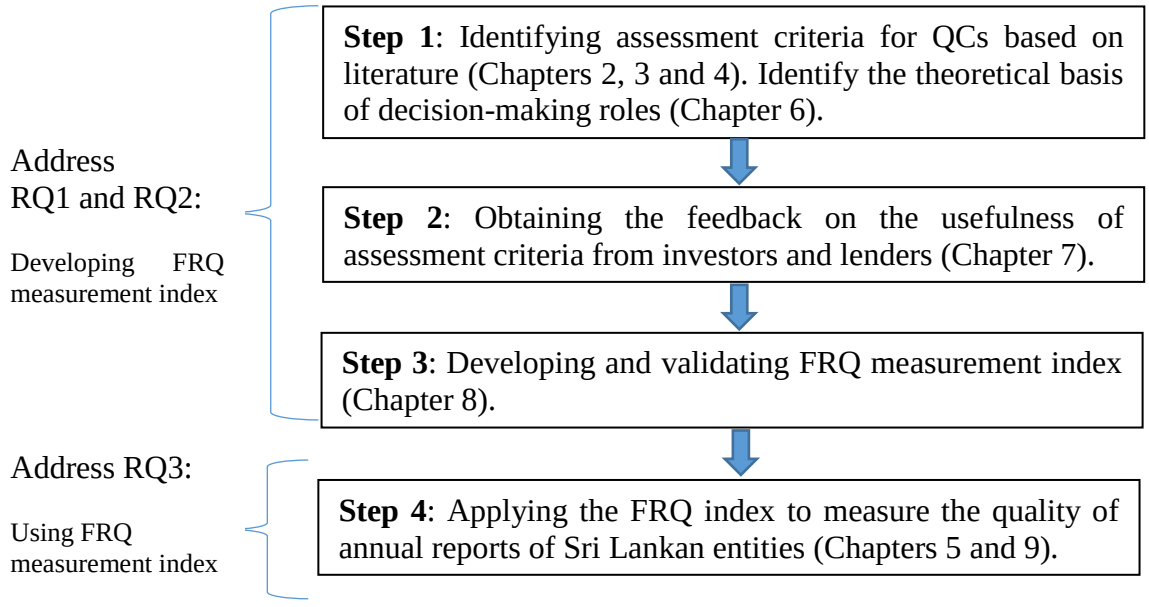


Figure 1-1 – Operationalisation of the thesis: the thesis process

In Step 1, I search the literature in which QCs play a major role, such as user need surveys and disclosure studies, in order to identify major information dimensions[11] and associated observable sub-information items[12] in relation to assessing QCs, which serves as a preparation to developing the FRQ measurement index.

In Step 2, I validate the information items collated in Step 1: I test the usefulness of the identified information items to measure FRQ by surveying Sri Lankan investors and lenders. I also use the survey to ask investors and lenders about their views on the use of annual reports, the importance of QCs, and their perception of IFRS impact on their specific decision roles. These data are analysed using the Statistical Package for Social Sciences (SPSS).

In Step 3 and based on the feedback from the survey, I develop the FRQ measurement index. The information items that go into the FRQ index are statistically validated by confirmatory factor analysis using SmartPLS. Then, I use structural equation modelling using SmartPLS to assess the relative contribution of the 6 QCs to measure FRQ.

Finally, in Step 4, the RQ3 of the thesis is addressed by measuring the FRQ contained in annual reports of Sri Lankan listed entities. I use a sample of 53 firms for which I examine their annual reports for the years 2010 (pre-IFRS adoption), 2014 and 2018 (post-IFRS adoption) using content analysis. I use various standard statistical analysis methods in SPSS to examine whether or not the FRQ has improved in the period after IFRS adoption as compared to before IFRS adoption.

[11]The term 'information dimensions' is used for the broader information categories (latent constructs) that are used to assess QCs. E.g., 'forward-looking information' to measure QC of relevance.
[12] The term 'sub-information items' is used for the measurable information items under each information dimensions. E.g., 'forecasted growth in revenue' to measure forward-looking information.

Below I give a chapter by chapter overview of my thesis.

Chapter 2 Discussion of the concept of FRQ and in relation to QCs; analysis of inherent problems of different methods used in literature in assessing FRQ; critical evaluation of QCs-based approaches to measure FRQ in previous studies.

Chapter 3 Examining the literature to identify information items that can be used to assess QCs in terms of measuring FRQ.

Chapter 4 Literature review relating to the usefulness of annual reports for investment and lending decisions, the importance of QCs for investors and lenders, and their perception of the impact of IFRS on improving FRQ.

Chapter 5 Review of the development of the financial reporting environment in Sri Lanka, including the adoption of IFRS.

Chapter 6 Research philosophy that my thesis is based upon and the research methodology that I use to achieve the thesis objectives.

Chapter 7 Development and implementation of the user need survey to examine the perception of Sri Lankan investors and lenders regarding the role of QCs and FRQ, their views on the use of annual reports and the importance of QCs to their decision roles.

Chapter 8 Development of FRQ measurement index based on the sub-information items identified in Chapter 3; validation and reliability assessment of the FRQ measurement model.

Chapter 9 Application of the FRQ measurement model in the Sri Lanka context; content analysis of annual reports to examine if the FRQ has improved in the period after IFRS adoption.

Chapter 10 Summary of findings and conclusion of the thesis; discussion of analysis limitations in the study; potential future research.

Chapter 2

Defining and measuring FRQ

Scholars have defined and assessed the quality of financial reporting in various ways, and there is little uniformity of definitions or methods. Agienohuwa & Ilaboya (2018) noted that methodological challenges, in particular, defining and measuring quality, are affected by assessment and evaluation of the decision usefulness of financial reports. Therefore, the following sections of this chapter discuss FRQ. Next, I focus on the assessment methods of FRQ, including their inherent merits and demerits. Here I discuss the literature and suitability of the QCs-based approach in measuring FRQ and criticisms of existing QCs-based approaches.

2.1 Defining FRQ

FRQ is a concept that is often referred to in academic literature either directly but more often indirectly through notions of 'quality of information'. The identification of a single, generally accepted definition has been regarded as difficult (Ball, Robin, & Wu, 2003; Cheung et al., 2010; Dechow, Ge, & Schrand, 2010). This difficulty is evident by the range of approaches used by researchers (cf. Table 2-1 about FRQ definitions and Table 2-2 in relation to methods to measure FRQ). Agienohuwa & Ilaboya (2018) comment that the concept of FRQ has been open to complex, confusing, and contradictory debates on financial reporting and accounting standard-setting globally. Mbobo & Ekpo (2016) note that researchers, practitioners, and regulators either disagree or are even silent as to a clear definition of what constitutes FRQ. They used the example of the Sarbanes-Oxley (SOX) Act of 2002 which requires audit committees and auditors to discuss the quality of information disclosed by the company when the Act does not provide a clear understanding of what FRQ entails. The Act stipulates it is the

responsibility of "… the standard-setting body [to be] capable of improving the accuracy and effectiveness of financial reporting and the protection of investors under the securities laws" (SOX, 2002, p. 768) through "… [keeping] standards current in order to reflect changes in the business environment, the extent to which international convergence on high-quality accounting standards is necessary or appropriate in the public interest and for the protection of investors" (SOX, 2002, p. 768). As discussed in Section 1.2, the IASB's Conceptual Framework also states that it provides the foundation for standards that "contribute to transparency by enhancing the international comparability and quality of financial information" (IASB, 2018, p. 6). The IASB mission statement uses the term 'quality of reporting', but the standard-setter does not go into further details about what FRQ entails.

One of the possible reasons for this difficulty of defining FRQ is that different users utilise financial reports with different objectives and different information needs. For example, investors decide to invest or disinvest in businesses under various investment strategies such as dividend income and capital gains. Lenders, on the other hand, are concerned about the capacity of the business to meet debt obligations. In assessing the financing of a company, lenders are primarily interested in the solvency, liquidity, and profitability indicators of the company. This argument was supported by Beattie et al. (2004), Dechow et al. (2010) and McDaniel et al. (2002) who assert that the notion of quality is inherently subjective due to conflicting preferences across user groups which are making different judgments and decisions. Mai (2013) also argued that the quality of information is a subjective construct, and users of that information would judge about its quality for themselves. Therefore, it is not surprising that prior literature has struggled to come up with a generally accepted FRQ definition and with identifying a set of absolute quality assessment criteria.

Table 2-1 gives an overview of the variety of quality perceptions and FRQ definitions. Notably, as identified by Achim & Chiş (2014), the definitions vary considerably across individuals, projects, companies, and organizations, depending on the purpose of using financial information.

Table 2-1 – Definitions and views for FRQ

Author/s	FRQ definition and views
Jonas & Blanchet (2000, p. 357)	"Full and transparent financial information that is not designed to obfuscate or mislead users."
Robinson & Munter (2004, p. 2)	"FRQ goes beyond the traditional view of conservatism and earnings quality. FRQ relates the overall quality of the financial statements and related disclosures to ask how well the reported results fairly present the operations and financial position of a company."
Biddle, Hilary, & Verdi (2009, p. 113)	"The precision with which financial reports convey information about the firm's operations, in particular its cash flows, to inform equity investors."
Beest et al. (2009, p. 4)	"A broader concept that not only refers to financial information but also disclosures and other non-financial information useful for decision-making."
Cheung et al. (2010, p. 160)	"Quality depends on "for whom the information is prepared" and "for what purpose"."
FASB (2010, p. 11)	"Transparency, high quality, internal consistency, true and fair view or fair presentation, and credibility have been suggested as desirable qualitative characteristics of financial information. However, transparency, high quality, internal consistency, true

	and fair view or fair presentation are different words to describe information that has the qualitative characteristics of relevance and representational faithfulness enhanced by comparability, verifiability, timeliness, and understandability."
Elbannan (2011, p. 210)	"The extent to which financial reports of a company communicate its underlying economic state and its performance during the period of measurement."
Platikanova & Perramon (2012, p. 498)	"The quality of information is high if users can identify similarities and differences between two sets of economic phenomena."
Achim & Chiş (2014, p. 93)	"FRQ cannot be uniquely defined. Financial information is of good quality when it enhances the QCs incorporated in the Conceptual Frameworks of IASB (and FASB)."
Herath & Albarqi (2017, p. 2)	"Referring to the FASB, IASB, the Accounting Standard Board in the United Kingdom (ASB-UK), and the Australia Accounting Standard Board (AASB), FRQ is when financial statements provide accurate and fair information about the underlying financial position and economic performance of an entity."
CFA (2019, p. 238)	"FRQ refers to the characteristics of a firm's financial statements. The primary criterion for judging FRQ is adherence to generally accepted accounting principles (GAAP) in the jurisdiction in which the firm operates. Given that GAAP provides choices of methods and specific treatment of many items, compliance with GAAP by itself does not necessarily result in financial reporting of the highest quality. High-quality financial reporting must be decision-useful. Two characteristics of decision-useful financial reporting are relevance and faithful representation."

Firstly, I observe that few of the above definitions refer to the IASB's QCs as measures of decision usefulness that improve the FRQ. It took the IASB some time to link FRQ and QCs in its mission statement as well as in its Conceptual Framework. Since 2001 to mid-2015, according to the IASB mission statement, one of the main objectives of the IASB has been "to develop, in the public interest, a single set of high-quality, understandable and enforceable global accounting standards that require high-quality, transparent and comparable information in financial statements and other financial reporting to help participants in the world's capital markets and other users make economic decisions" (Pacter, 2017, p. 7). In mid-2015, the IASB revised its mission statement, which states that "IFRS will bring transparency, accountability, and efficiency to financial markets around the world" (Jorissen, 2015; Pacter, 2017, p. 14).[13] It recognises that 'high-quality' financial information is the lifeblood of the capital market[14]. The IASB's mission "brings transparency by enhancing the international comparability and 'quality' of financial information, enabling investors and other market participants to make economic decisions" (Pacter, 2017, p. 14).

Even though the new mission statement does not directly aim for a single set of high-quality accounting standards, it still focuses on improving the quality of information to improve transparency. Ball (2016, p.1) states that "The perspective in 2005 was that IFRSs were generally perceived to be high-quality standards, whatever that maybe, but that they were incomplete, while ten years later, they remain viewed as of high quality...". However, Jorissen (2015) argued that though high-quality information is the core goal in the mission statement, neither the IFRS nor IASB provide a concise definition of this concept. Jorissen further argued that the IASB provides a description of characteristics concerning the consequences of high-

[13] See http://www.ifrs.org/use-around-the-world/why-global-accounting-standards/
[14] See https://www.ifrs.org/about-us/who-we-are/

quality information. As I have already noted in Section 1.1, the IASB has eventually indicated that the QCs of financial information are fundamentally important and lead to quality financial reporting.

Secondly, in defining FRQ, the following question arises: Does the term FRQ focus only on financial information within the financial statements, or does it also consider all financial and non-financial information in the annual report?. Information in annual reports can be of financial and non-financial nature, and quantitative and qualitative. In making rational decisions, readers may use any type of information, whether in financial statements or the other more narrative reports. Generally, the financial statement information becomes more meaningful when it read together with, and reflects on the other reports included in annual reports. For example, let us look at lending decisions. Lenders focus on the repayment capacity of the customer. This will entail i) an examination of the forecasted cash flows provided by the borrower, and ii) an in-house analysis of future cash-flows. Both (credit) risk analyses will be significantly enhanced when relevant non-financial information is available. Therefore, in enhancing decision usefulness, financial information should be considered along with non-financial information. Similarly, if an investor focuses on the profitability of an entity to either buy or sell shares, they would rationally observe financial information of past and future profitability and link this with the company's past and future strategies, and the capabilities of the governing board to implement them.

Therefore, defining FRQ in terms of decision usefulness should focus not only on financial information but also on non-financial information. In practice, financial statements are part and parcel of annual reports in which they are interconnected with other narrative reports to provide a holistic picture of an entity. For example, the IASBs' readiness to shift

reporting orientation to focus with Integrated Reporting requires to define the FRQ beyond the financial statements.[15] Therefore, I argue that the FRQ must be developed as a broader concept that is not limited to financial statements, but also to the whole annual report. This is supported by the literature (e.g., Al-Ajmi, 2009; Alattar & Al-Khater, 2008; De Zoysa & Rudkin, 2010; Robinson & Munter, 2004; Stainbank & Peebles, 2006) in which the authors investigate the degree to which other narrative reports contribute to economic decision-making of users. Others studies (e.g., Al-Ajmi, 2009; Biswas & Bala, 2016; De Zoysa & Rudkin, 2010; Naser et al., 2003) confirm that all information in annual reports is used as one of the prime sources for users' economic decisions.

In summary, I note that there is no universally accepted definition of FRQ, even though the IASB and the IFRSs revolve around FRQ. Further, I argue that the absence of a clear understanding of quality in the prior literature may have occurred because different users demand different information to make economic decision and form expectations. Importantly, the IASB indicates that the QCs improve the usefulness of information, which in turn enhances FRQ. Finally, I note that user needs are rarely linked to specific QCs as quality assessment proxies (Dechow et al., 2010). Hence, it is vital to examine FRQ i) from the user perspective in terms of QCs, and ii) with a focus on financial as well as non-financial information provided in the whole annual report.

Beyond definitional matters, the literature has developed and applied various FRQ assessment techniques which provide a useful basis for the identification of quality assessment proxies. Therefore, the next section discusses those different methods.

[15] See https://www.ifrs.org/news-and-events/2017/04/iasb-and-integrated-reporting/

2.2 Models and methods of measuring FRQ

Since there is no agreement on a single FRQ definition, it is of no surprise that there is no universally accepted way to measure FRQ. In science, there is a clear distinction between a model (which is the algebraic formulation of theory) and a method (which is a procedure). However, in the literature that discusses FRQ, these two terms are often used interchangeably. In the following review, I attempt to do justice as best as possible to the distinction between method and model where possible. According to Francis, LaFond, Olsson, & Schipper (2004), there are two categories of proxies for FRQ: accounting-based indicators such as accrual quality or earnings management, and market-based models such as value relevance. Abdullahi & Abubakar (2017) identify three approaches to quantifying FRQ which are i) quantitative models such as earnings management and value relevance approach, ii) approaches which use firm-specific attributes such as asset level, sales and different types of ratios, and iii) QCs-based methods which blend financial and non-financial information. Beest et al. (2009) and Mbobo & Ekpo (2016) identify four categories: accrual methods, value relevance methods, studying specific elements in annual reports, and QCs-based methods as proxies for measuring FRQ. Some of these methods are summarised in Table 2-2.

Table 2-2 – Comparison of different methods of measuring FRQ

	Accrual models	Value relevance models	Specific items as proxies for FRQ	QCs-based approach
Description	• Use the level of earnings management by earnings quality as a proxy for assessing quality. • Widely used models are; Jones (1991), Kasznik (1999) and Dechow & Dichev (2002).	• Examines the relationship between earnings figures (accounting variables) and stock returns. • The commonly used model is Ohlson (1995).	• Consider specific elements/aspects in the financial reports (e.g. fair value, quality of internal controls, auditor's report, readability of information etc.), or individual QCs such (e.g. reliability, relevance, timeliness) as a proxy for assessing quality. • No commonly accepted model available.	• Assessing FRQ in terms of decision usefulness to investors and lenders based on the QCs as described within IASB's Conceptual Framework. • Frequently used model is Beest et al. (2009) and Braam & Beest (2013).
Merits	• The relative ease in data collection and measurement. • Helps to analyse a company's performance by examining the effect of company characteristics on the degree of earnings management.	• Focuses on the connotation between accounting numbers and stock-market reactions. • Provides insight into the economic value of the earnings figure to measure FRQ.	• Detailed examination of a specific aspect of quality. • Consider the non-financial aspect of quality.	• A direct measure of FRQ. • Define the quality of financial reporting directly focusing on the decision usefulness as defined by IASB Conceptual Framework. • Considers from user's decision perspective, such as quality (useful) for what? and quality (useful) for whom? • Captures both the financial and non-financial information that assists user's decision-making. • Consider all the QCs.
Demerits	• Derived measure of FRQ. • The assumption that the company's earnings are the most	• Derived measure of FRQ. • Applicability is limited in the absence of a developed capital market.	• Derived measure of FRQ. • Partial focus and does not provide a complete overview of overall FRQ. • Considers only one or few QCs.	• Likelihood of the influence of personal bias and subjectivity of the researcher in the measurement and operationalization of QCs.

	important item in the financial statements. • Problems of distinguishing between discretionary and non-discretionary accruals. • Earnings management detection tools show the importance of earnings quality rather than FRQ. • Concentrate only on the financial aspect of reporting quality. • Consider only information disclosed in financial statements • Disregard user perception • Indirect measure for FRQ.	• Considers only information disclosed in financial statements to assess the FRQ. • Disregards user perception. • Assumes that accounting information is directly correspondent to market value. • Indirect measure for FRQ.	• Does not focus on user perception.	• The difficulty of identifying all relationships among QCs. • IASB's consensus views are unlikely to reflect the perceptions and expectations of all interest groups equally.
Examples; Scholars who used this method/s	Gul, Chen, & Tsui (2003); Dowdell & Krishnan (2004); Aboody, Hughes, & Liu (2005); J. Francis, LaFond, Olsson, & Schipper (2005); Biddle et al. (2009); Beneish (2001); Gregoriou, Eliwa, & Patterson (2019); Rampershad & de Villiers (2019); Phuong & Hung (2020)	Aboody, Hughes, & Liu (2002); Barth, Beaver, & Landsman (2001); Burgstahler & Dichev (1997); Yasas & Perera (2019)	Fair value – Koonce, Nelson, & Shakespeare (2011); auditors report – Gray, Turner, Coram, & Mock (2011); readability of information – Biddle et al. (2009); individual QCs – Armstrong et al. (2010); Daske & Gebhardt (2006); Jonas & Blanchet (2000); Kythreotis (2014); Parry & Groves (1990); Schipper & Vincent (2003)	Abedana et al. (2016); Agienohuwa & Ilaboya (2018); Agyei-Mensah (2013); Braam & Beest (2013); Beest et al. (2009); Chakroun & Hussainey (2014); Dimi et al. (2014); Jerry & Saidu (2018); Mbobo & Ekpo (2016); Yurisandi & Puspitasari (2015)

2.2.1 Earnings management-based approach

Earnings management is the "purposeful intervention in the external financial reporting process, with the intent of obtaining some private gain" (Schipper, 1989, p. 92). Accrual models use the level of earnings management as a proxy for FRQ. A model used by many researchers is the Jones (1991) model (used by, e.g., Gul et al., 2003; Dowdell & Krishnan, 2004; Beneish, 2001) that viewed reporting quality as an inverse measure of earnings quality. Dechow & Dichev (2002)'s accrual quality model (used by, e.g., Aboody et al., 2005; Biddle et al., 2009; J. Francis et al., 2005; Phuong & Hung, 2020) measure how well accruals map onto cash flows (Tasios & Bekiaris, 2012). For example, Biddle et al. (2009) used discretionary accruals using the Dechow & Dichev (2002) model as one proxy for FRQ in assessing investment efficiency. Discretionary accruals based method is on the view that accruals increase the informativeness of earnings and has been used frequently in the literature (Biddle et al., 2009).

Earnings management-based models assume that a company's earnings are believed to be the most important item in the financial statements which capture the quality of reporting. Earnings management is presumed to negatively impact the quality of financial reporting by decreasing its decision usefulness (Van Tendeloo & Vanstraelen, 2005). The merits of using discretionary accruals as a measure of earnings management are that there is an opportunity to observe the outcome of company characteristics on the degree of earnings management, and comparatively ease in data collection and measurement (Dechow, Sloan, & Sweeney, 1995). Hence, Mbobo & Ekpo (2016) argue that most analysts tend to use this method when analysing a company's performance. However, this model only provides an indirect measure for FRQ and distinguishing between discretionary and non-discretionary accruals is problematic (Healy & Wahlen, 1999). Also, earnings management methods highlight the importance of earnings quality rather than FRQ and do not focus on non-financial information in decision-making.

2.2.2 Value relevance approach

Value relevance models examine the relationship between stock returns and earnings figures reported in financial statements. This assesses whether particular accounting numbers show the information that is used by investors in evaluating firms' equity (Barth et al., 2001) and observe the link between a stock price and accounting variables (Beaver, 2002). The most frequently employed models in value relevance research are the Ohlson models (1995, 1999) which are used in hundreds of papers in different fields. Some that use the Ohlson model in FRQ context are, for example, Aboody et al. (2002), Burgstahler & Dichev (1997) and Yasas & Perera (2019). In the value relevance approach, the stock price is presumed to be the market value of the firm, while accounting numbers represent the firm value established on accounting data. Therefore, such models measure the FRQ by focusing on the association between accounting figures and stock-market reactions. However, in the absence of a developed and efficient capital market, changes in accounting information will not fully correspond to changes in the market value of firms. Also, this model focuses on an investor's point of view. Although this model provides insight into the economic value of the earnings figures, Mbobo & Ekpo (2016) argue that it does not distinguish between the relevance and reliability of reporting information and it provides only an indirect measure of FRQ.

The above-discussed accrual models and value relevance models were criticised by Beest et al. (2009) because the variables used traditionally within those models measure financial statement information only. However, they note that FRQ is a wider concept that also encapsulates, i.e., is influenced by, the information in the non-financial parts of an annual report, which ought to be included in an attempt to measure FRQ comprehensively, as lacking to include such information in a model will produce biased results. Similarly, Abdullahi & Abubakar (2017) stated that the value relevance and timely loss recognition approaches

concentrate on the financial characteristic of reporting quality of relevance and reliability. They do not focus on non-financial attributes, such as understandability and comparability.

Many prior studies on FRQ are quantitative studies (e.g., Barth et al., 2008; Chen, Tang, Jiang & Lin, 2010; Dechow et al., 2010; Fox, Hannah, Helliar, & Veneziani, 2013). Brüggemann, Hitz, & Sellhorn (2013) state that most studies on financial reporting in prior literature which use quality measures rely on commercial databases and consideration of the impact beyond aggregate numbers is still lacking. A significant limitation of the quantitative models is the difficulty of identifying whether the findings of quantitative studies are affected by variations in the financial reporting characteristics or rather by variations in economic environment or firm's incentive structure.

2.2.3 Individual QCs or narrative reports-based approach

In the third category, studies of specific elements in the financial reports (e.g. fair value quality of internal controls, auditor's report, readability of information), individual QCs (e.g. timeliness, reliability, relevance), or the quality of different narrative reports (e.g. audit report) in annual reports are used as proxies for the overall FRQ. These approaches evaluate specific elements of the financial reports in-depth and examine the impact of presenting particular information in the annual report on the users' decisions of such information. For example, some scholars have used fair value (Koonce et al., 2011), quality of internal controls (Lajili, Dobler, & Zéghal, 2012), auditors reports (Gray et al., 2011) or the readability of information (Biddle et al., 2009) as measures of FRQ. Further, under this category, individual QCs were employed by some scholars as proxies to measure the FRQ (e.g., Armstrong et al., 2010; Daske & Gebhardt, 2006; Davies & Whittred, 1980; Jonas & Blanchet, 2000; Kythreotis, 2014;

McDaniel et al., 2002; Parry & Groves, 1990; & Schipper & Vincent, 2003; Wolk, Francis, & Tearney, 1992).

Parry & Groves (1990) used timeliness as a proxy for measuring the quality of financial reporting in Bangladesh using Singhvi's (1968) index in the annual reports of 94 companies. They noted that there is no significant relationship between the quality of financial reporting and the financial reports that are prepared by professionally qualified accountants. Jonas & Blanchet (2000) developed questions on separate QCs to assess information quality grounded on the earlier frameworks of the FASB (1980) and the IASC (1989). Further examples of early studies based on QCs include McDaniel et al. (2002) who used the pronouncements of the FASB to identify a few QCs of information. Woods & Marginson (2004) followed a similar approach and developed a QCs-based approach on the pronouncements of the IASB to assess the quality of reporting. The main advantage of this approach is the formation of a direct linkage between the quality perceptions of specific user groups and development of quality measurements. Additionally, Jones & Smith (2014) studied the use of substitute measures of understandability on accounting texts using the Meaning Identification Test (MIT) and the Sentence Verification Technique (SVT). Kythreotis (2014) also measured the quality of financial statements by using relevance and reliability and regression models.

Although the method of using individual QCs provides a direct measure of FRQ, Beest et al. (2009) explain quite rightly that it does not provide a complete measure of FRQ. Also, the use of individual QCs does not comply with the Conceptual Framework approach of measuring QCs in terms of decision usefulness, and it measures only a partial aspect of FRQ. As evidence, Schipper & Vincent (2003) stated that defining FRQ in terms of relevance, reliability, and comparability is empirically challenging if the objective is to measure those

components individually, as they are neither mutually exclusive nor certainly compatible. They characteristically cannot be independently measured.

In summary, earnings management and value relevance models, and the individual QC-based approaches to measuring FRQ, consider only information disclosed in financial statements to assess FRQ with a narrow quality perception, and disregard the user dimension such as quality (useful) for what? And, quality (useful) for whom? On the useful side, the literature has revealed a large range of quality constructs and assessment proxies which can be used to evaluate FRQ and develop measures for the QCs in assessing FRQ. Therefore, a holistic QC-based approach within the Conceptual Framework of IASB helps to overcome shortcomings in the previously discussed methods of measuring FRQ. This is further rationalised in the next section.

2.2.4 Holistic QCs-based approach for measuring FRQ

The fourth method in measuring FRQ is the consideration of all the QCs together. Users place a high level of trust in financial as well as non-financial information when making resource allocation decisions (Clarke, Hrasky, & Tan, 2009). On the other hand, different users (or user groups) rely on different parts of a financial report to satisfy their information needs (Hirshleifer & Teoh, 2003) and each user (or user group) is likely to have a different quality expectation (Ball et al., 2003). In this context, the holistic QC-based approach is the only method which complies with the Conceptual Framework of IASB since it recognises all QCs as determinants of useful information. Assessing FRQ in terms of decision usefulness based on the QCs addresses the following concerns.

Firstly, despite the absence of a clear definition for FRQ discussed above, the IASB framework provides concise guidance on quality in terms of decision usefulness and a clear connection between the QCs which are expressed through the financial reports that the users request for the different types of decisions they make. I have represented this relatedness in Figure 2-1.

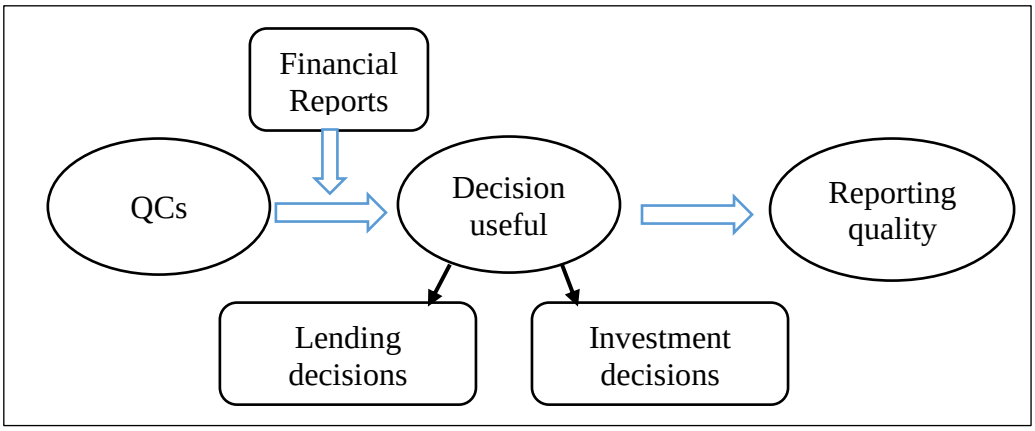


Figure 2-1 – Relationship between QCs, decision usefulness, and FRQ

The Conceptual Frameworks (both 2010 & 2018) recognise that the objective of general-purpose financial reporting is to "provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity" (IASB, 2010, p. 9; 2018, p. 8). These decisions involve decisions about; "(a) buying, selling or holding equity and debt instruments; (b) providing or settling loans and other forms of credit; or (c) exercising rights to vote on, or otherwise influence, management's actions that affect the use of the entity's economic resources" (IASB 2018, p. 8). Hence the IASB Conceptual Frameworks focus on investors (equity holders) and lenders (debt holders) as the main groups of users of financial reporting. Also, the Conceptual Framework of IASB provides an answer to the two questions of decision usefulness, i.e., 'quality (usefulness) to whom?', and 'quality (usefulness) to make what decision?' Answering 'quality (usefulness) to whom?', the 2010 and 2018 IASB Conceptual

Frameworks recognise investors and lenders as the main groups of users of financial reports since they are the capital providers, current and potential, to reporting entities. Answering to 'quality (usefulness) to make what decision?', the Conceptual Framework identifies that buying, selling or holding equity and debt instruments for investors and providing or settling loans and other forms of credit for lenders. Hence, the Conceptual Framework gives guidance about the scope of decision usefulness.

Further, the IASB recognises that "if financial information is to be 'useful', it must be relevant and faithfully represent what it purports to represent", and "the 'usefulness' of financial information is enhanced if it is comparable, verifiable, timely and understandable" (IASB, 2010, p. 14; 2018, p. 16). Thus, the Conceptual Framework connects usefulness in terms of QCs with the decision-making scenarios of investors and lender.

The second aspect of the QCs-based approach in assessing FRQ is that it captures both the financial and non-financial information that assist users' decision-making (e.g., Abdullahi & Abubakar, 2017; Beest et al., 2009; Braam & Beest, 2013). Accounting professional bodies (e.g., CPA, IASB) and researchers (e.g., Beattie et al., 2004; Beretta & Bozzolan, 2008) have discussed the importance of the narrative portion of financial statements. For example, IASB's *IFRS Practice Statement 1 – Management Commentary* recognises that "Management commentary provide users of financial statements with integrated information providing a context for the related financial statements…".[16] These narratives discuss the non-financial information, which improves the amount and quality of the information provided to investors and lenders (Garefalakis, Dimitras, Floros, & Lemonakis, 2016). Ball et al. (2003) also highlighted the importance of integrating non-financial quality assessment proxies into quality

[16] See https://www.ifrs.org/issued-standards/management-commentary-practice-statement/#about

assessments. Hence, it is argued that a highly effective quality assessment model should incorporate financial as well as non-financial aspects of financial reporting in compliance with the QCs. However, a small number of studies within the FRQ literature has applied quality assessment models that focused on financial outcomes as well as non-financial quality assessment proxies (e.g., Beest et al., 2009; McDaniel et al., 2002; Woods & Marginson, 2004), focusing on the QCs specified by IASB.

Thirdly, the literature that supports the QCs-based approach in assessing FRQ (e.g., Jonas & Blanchet, 2000) in the last two decades cements my line of argumentation. Păşcan (2015) states that the Conceptual Framework sets the objective of general-purpose financial reporting (by reference to the primary users), wherefrom certain QCs of useful financial information emerge. Supporting this argument, Achim & Chiş (2014) identify that the FRQ is enhanced by the characteristics incorporated in the Conceptual Frameworks issued by both the IASB and the FASB. The same view is held by Cheung et al. (2010) who state that, although the meaning of the word quality is rarely addressed directly, the QCs contribute to a definition of the concept of quality nevertheless. Botosan, Plumlee, & Xie (2004) also propose the use of the quality dimension drawn from the Conceptual Framework when referring to desirable QCs.

According to Francis et al. (2004), except for the QCs-based approach, the other models are classified as accounting-based indicators where those indicators count the intrinsic quality of financial reporting from the viewpoint of the preparers of financial reports. In contrast, the QCs-based approaches measure the extrinsic quality of financial reporting from the users' perspective by assessing the quality of financial reporting from the needs and expectations of specific users. In summary, several studies (e.g., Beest et al., 2009; Braam & Beest, 2013;

Cheung et al., 2010; Jonas & Blanchet, 2000; Mbobo & Ekpo, 2016) show that the QCs-based approach to FRQ measurement is the preferred approach.

Despite appearance support for QCs-based model as a way of measuring FRQ, very few studies have implemented this approach in full, and none of the studies has focused on decision usefulness in terms of the decision-making scenarios of lenders and investors. Further, Mbobo & Ekpo (2016) state that all QCs-based studies are scanty in assessing FRQ. Nobes & Stadler (2015) state that QCs are abstract and difficult to measure via empirical proxies. One of the reasons for this is the problem associated with measuring the QCs which themselves are composite constructs (i.e., encapsulating several dimensions relating to information properties).

2.3 Quality measurement index using QCs

As discussed above, one of the major problems in assessing FRQ based on decision usefulness in terms of QCs is the difficulty of measuring QCs (Schipper & Vincent, 2003). This assumed hurdle has been surpassed by Beest et al. (2009), who developed an FRQ assessment index using 21 measures for the QCs. Their index is conceptually formulated: the measures are based on the literature that focuses on individual QCs. The reliability and consistency were tested on 231 annual reports from firms listed on the UK, US and Dutch stock exchanges in 2005 and 2007. This index was further developed by Braam & Beest (2013), who added 12 more measures (cf. Appendix 3). Braam & Beest (2013) then calculated the scores, using 32, 5-point Likert scales and a custom scale for 1 of the measures, for all 33 measures using 140 UK and US annual reports. With respect to the comparison of the two cohorts of reports, they concluded that UK annual reports score, on average, higher quality levels than the US reports. The more interesting result is that they factor analysed (exploratory) the 33 measures and did not obtain

a 6-factor structure that one may have expected according to the 2010 Conceptual Framework: rather the reported result provided in the paper shows a 3-factor structure with contributions from measures that have been thought to represent different QCs. The authors then conclude that individual QCs cannot be measured 'cleanly' by their selected FRQ index.

Later, the QCs-based approaches developed by Beest et al. (2009) and Braam & Beest (2013) were used by scholars (e.g., Agyei-Mensah, 2013; Chakroun & Hussainey, 2014; Dimi et al., 2014; Jerry & Saidu, 2018; Masruki, Hussainey, & Aly, 2018; Mbobo & Ekpo, 2016; Rashid, 2020; Tasios & Bekiaris, 2012) in assessing the quality of information applied in different contexts, such as financial reporting, corporate governance, and stock market research. The findings of those studies are discussed in Section 2.4. The purpose of this section is to discuss how my research extends and delineates from the quality measurement index developed by Beest et al. (2009) and Braam & Beest (2013).

Firstly, as per the Conceptual Framework, FRQ is defined in terms of decision usefulness which focuses on *investors* and *lenders*. This separation has not been explicitly accounting for in the quality measurement indices of Beest et al. (2009) and Braam & Beest (2013). At the basis of my research into formulating my FRQ measurement index stands a precise focus on that all measures are decision-type-context specific for capital providers (a limitation that Beest and Braam (2013, p. 1293) identified): the *types of decisions* the main users of financial reports are making are buying, selling or holding equity and debt instruments, and providing or settling loans and other forms of credit (cf. Section 1.2). The relationship between the types of decisions and the type of users is depicted in Figure 2-2, which representation will guide the development of the holistic FRQ measurement approach in this thesis.

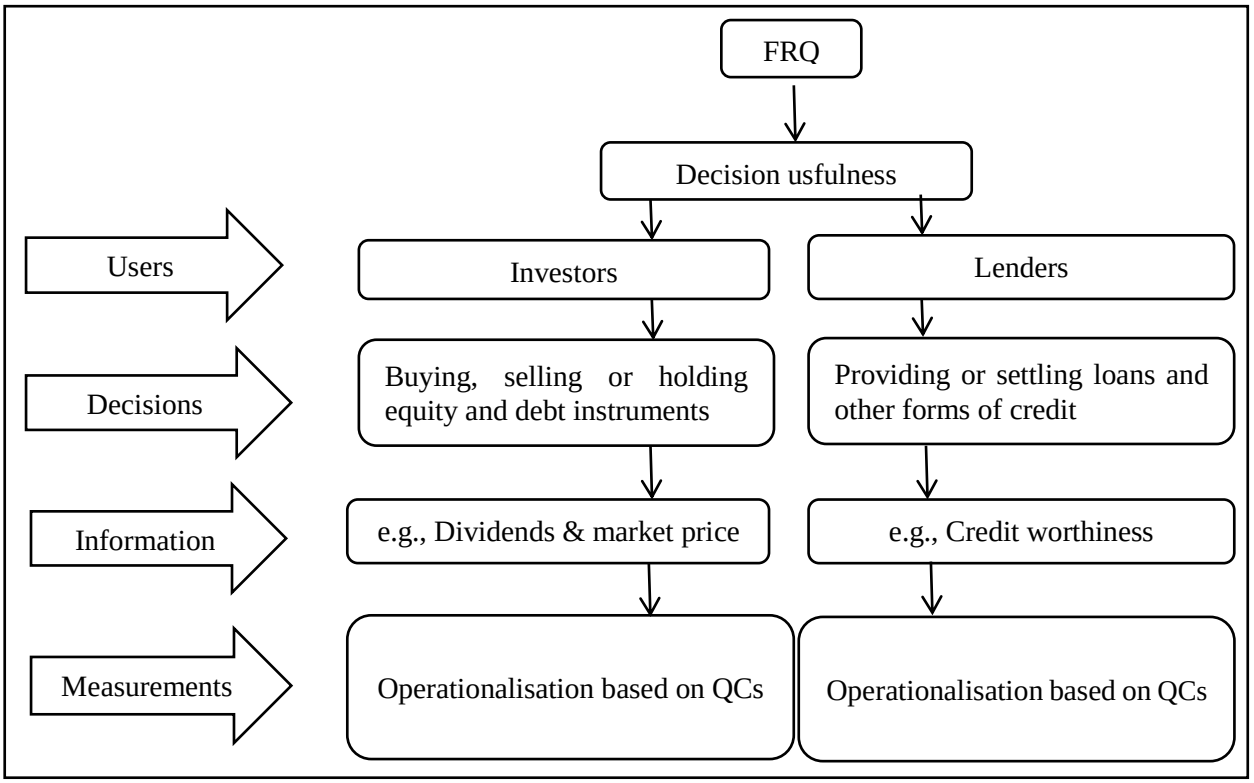


Figure 2-2 – Relationship of decision types and decision usefulness between user groups

Secondly, recall that the Conceptual Framework identifies the QCs into two clusters, fundamental and enhancing (IASB, 2018, p.14 &15), and recognises that enhancing QCs are supportive and improve the fundamental QCs (IASB, 2018, p.17). The quality measurement index developed by Beest et al. (2009) and Braam & Beest (2013) assumes all selected measures contribute equally to FRQ. In my research, I critically test the postulated classification and the individual capacity of QCs to measure FRQ.

Overall, the above discussion in this Section (2.3) makes several important observations. Beest et al. (2009) and Braam & Beest (2013) provide a start with a holistic and QC-based approach to measure FRQ, which challenges 'simpler' capital markets methods in that reporting quality is a multi-dimensional construct that arguably lies within the voluminous information of an annual report. Hence, in my research I focus on the choice of measures that are used to assess FRQ: they must align objective and goal, i.e., each measure needs to be

susceptible to the decision usefulness in terms of particular users (to whom?) and their needs (to what decision?). Also, a fundamental aspect is that the measures should be formulated non-ambiguously. Thus, broader concepts, such as, e.g., forward-looking information, should be split into easily measurable parts (e.g., forecasted revenue, profit, or share price) to mitigate the subjectivity of assessments.

The next section discusses the use of the QCs-based approach in the literature.

2.4 Use of FRQ measurement index based on QCs

The FRQ measurement indexes of Beest et al. (2009) and Braam & Beest (2013) have been used in other studies either directly or in a customised version. These studies can be grouped into the following three categories: i) user perception studies, ii) content analyses of annual reports, and iii) the impact of IFRS research. This section provides an overview of the findings for studies which are most relevant to my work.

In the group of user perception studies, Tasios & Bekiaris (2012) investigate auditors' perceptions of the quality of financial reports based on the QCs as defined by IASB. They used the Beest et al. (2009) index and concluded that auditors perceive the QCs as an important quality element of financial reports. Mbobo & Ekpo (2016) examine the perception of Nigerian accountants about the quality of financial reporting and the use of QCs in assessing FRQ. The objective of their study was to demonstrate how the QCs, as defined by the IASB, can be operationalised using a survey approach. The study concludes that the respondents perceive faithful representation and relevance as having a more possibility of enhancing the FRQ than the other QCs.

The content analysis studies, for example, Chakroun & Hussainey (2014) are based on Beest et al. (2009), focused on 56 annual reports of non-financial companies listed on the Tunisian Stock Exchange. Based on the data collected for the years 2007 and 2008, the study revealed that board independence (managerial ownership) affects negatively (positively) the disclosure quality. Dimi et al. (2014) examined decision-useful information with an emphasis on the compliance level of QCs to provide a normative assessment of the quality of South African annual reports in the context in which the reporting environment transitions to Integrated Reporting in 2010. Based on the experts' views of corporate reporting, they found that changes in accounting policies; restatement of results, the use of notes to the financial statements, and supplementary information of South African companies' corporate reports provide useful information to users. Also, participants would need improvement of the disclosure and integration of non-financial information with the financial performance and entities' strategic vision. A study conducted by Jerry & Saidu (2018) examined the impact of audit firm size on the FRQ of listed insurance companies on the Nigerian Stock Exchange for the period between 2008 and 2015. The study found that audit firm size (Big 4) has a positive and significant impact on FRQ. For example, of a cross-disciplinary study, Rashid (2020) analysed 296 annual reports of entities listed on the Dhaka stock exchange (Bangladesh) for the years 2015 and 2016 to examine the effect of FRQ on share price movement. Rashid found a positive association between the FRQ and share price movement. Furthermore, the impact of enhancing QCs on share price movement is stronger than fundamental QCs. Importantly, he concluded that all QCs but relevance reveal an enhancement in the quality score in 2016 compared to 2015.

In the category of IFRS impact studies, Agyei-Mensah (2013) investigate the quality of financial reports disclosed by listed firms in Ghana in 2006 before IFRS adoption and in 2008

after IFRS adoption. The results indicate that the FRQ improved significantly after adopting IFRSs and that the firms are overwhelmingly compliant with the IASB's accounting standards. The results further revealed that company size, in terms of net assets and auditor type, was statistically significant with the quality of financial information in financial reports. Yurisandi & Puspitasari (2015) evaluate the impact of IFRS adoption on FRQ by conducting a pre-post study in Indonesia. They report that the QCs of relevance, understandability and comparability increased after the adoption of IFRS. Abedana et al. (2016) examine, among other things, whether the application of IFRS leads to a higher quality of disclosure. Their study examined the financial reports of 22 Ghana Stock Exchange-listed companies to determine the disclosure quality of financial reports in pre- and post-IFRS adoption periods using a modified version of Beest et al. (2009) quality measure index. The study revealed that there is a significant positive correlation between disclosure quality (based on the QCs such as relevance, faithful presentation, understandability and comparability) and adoption of IFRSs. Agienohuwa & Ilaboya (2018) investigate the change in FRQ between the period before (2008-2011) adoption of IFRS and after (2013-2016) adoption IFRS by a sample of Nigerian money deposit banks. They revealed a statistically significant increase in FRQ in the post-IFRS adoption reports (as compared to the reports disclosed pre-IFRS adoption) across the five QCs of relevance, faithful representation, comparability, understandability and timeliness.

2.5 Summary

Based on the above discussion, the following conclusions are drawn in support of the current study. Firstly, the IASB stipulates that the objective of financial reporting is to provide information mainly for investors and lenders as primary capital providers with respect to buying, holding or selling equity and debt instruments and granting loans and other forms of credit to customers respectively. The IASB works through IFRS to bring high-quality

information to those users. IASB's Conceptual Framework recognises that information is of good quality when it is decision-useful to users. Also, it provides QCs as features of useful information.

Secondly, many studies have attempted to define and measure FRQ. There are three main approaches: accrual-based approach, value relevance approach, and specific factors or individual QCs as proxies for reporting quality approach. Even though each has pros and cons as ways of measuring FRQ, each provides valuable inputs to develop a quality assessment model based on QCs in terms of decision usefulness.

The third conclusion is the most relevant: scholars have used QCs-based approaches in assessing FRQ already. However, those studies have not focused on i) the decision usefulness as per the IASB reporting framework in terms of types of users, their decisions and the information required for different decisions, ii) the classification of QCs as fundamental and enhancing and what this categorisation implies in relation to the contribution of the different classes of QCs towards FRQ, and iii) operationalising QCs in measurable form.

Therefore, in this thesis, FRQ is defined in terms of decision usefulness for two decisions: investment decisions – buying, selling or holding equity and debt instruments, and lending decisions – providing or settling loans and other forms of credit. Decision usefulness is assessed in terms of QCs, as per the IASB Conceptual Framework, considering financial as well as non-financial information by selecting useful information items for investors and lenders.

The next chapter focuses on identifying and justifying that identification and selection of measures to assess QCs.

Chapter 3

Assessment criteria for QCs

3.1 Introduction

As the first step of the FRQ measurement index development process (cf. Section 1.4), this chapter discusses the selection and justification of information items to assess the decisions usefulness based on the QCs of the IASB Conceptual Framework. A valuable start was provided by Beest et al. (2009) and Braam & Beest (2013), which I have extended through a literature search in which I have identified further information dimensions and sub-information items that are associated with the 6 QCs. I focused on scholarly articles that relate to the measuring of FRQ based on QCs and decision usefulness, the literature concerning user needs in particular with a focus on investors and lenders, and surveys conducted by various international professional bodies. Additionally, I considered guidelines published along with the IASB's Conceptual Framework, available annual report practices of Sri Lankan entities, annual report publishing guidelines issued by CASL, and necessary accounting standard practices and other statutory disclosure practices in Sri Lanka.

I used the following two criteria to select information dimensions and sub-information items for the FRQ measurement index: i) whether the information items assist in measuring the respective QCs (latent variables) and ii) whether the selected items are useful in making investment and lending decisions. The information dimensions and sub-information items are organized in a way to measure each fundamental QC, relevance and faithful representation, and all four enhancing QCs: understandability, comparability, verifiability, and timeliness (cf. Figure 3-1).

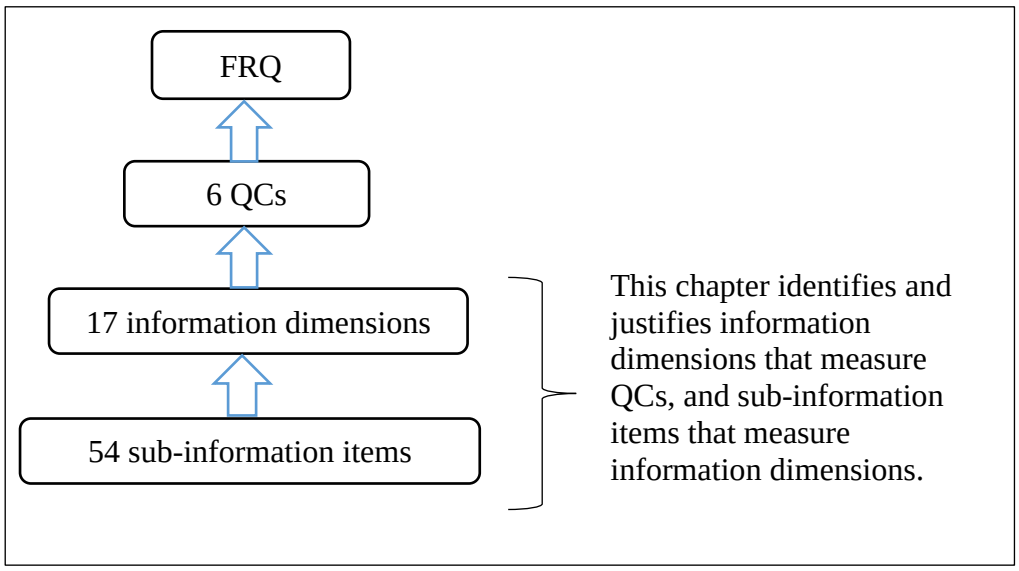


Figure 3-1 – Structure of the FRQ measurement index and numbers of identified measures.

This chapter is organised such that I discuss all 6 QCs with appropriate information dimensions and sub-information items. I conclude with a summary.

3.2 Relevance

According to the 2018 IASB Conceptual Framework, relevance is "the possibility that financial reporting information has an impact on the decision-making of financial report users, and relevant financial information is capable of making a difference in the decisions made by users" (IASB, 2018, p.14). 'Relevance' is a fundamental QC and is postulated to be useful in assisting the economic decision-making of users. Information that is irrelevant for making decisions by investors and lenders is neither useful nor relevant (IASB, 2018, p.16). Hence, relevance helps to improve the decision usefulness of the information. Similarly to the IASB, the FASB also discusses relevance referring to the ability of information to make a difference in a decision by serving users predict the results of past, present, and future events (FASB, 2010).

The IASB framework identifies that “financial information can make a difference if it has predictive value, confirmatory value, or both” (IASB, 2018, p.14). Financial information has predictive value if it aids the prediction of future outcomes, and is employed by users in making their predictions. Further, if the information is useful as input to the processes used by users to forecast future outcomes, then it has confirmatory value because it delivers feedback regarding previous evaluations (IASB, 2018, p.15). In other words, the information has confirmatory value if it confirms or modifies past (or present) expectations based on prior estimations.

Consequently, “the predictive value and confirmatory value are interrelated” (IASB, 2018, p.15). The IASB also notes that the ability to make the predictions or the capability of making corrections of prior expectations will depend on the knowledge and capacity of the users as well as the amount of information provided by the entity with respect to users’ informational needs. The following information dimensions and sub-information items are identified to measure relevance in terms of predictive and confirmatory value. They are summarised in Table 3-1, and the identification of sub-information items is discussed in relation to each of the information dimensions in the various sub-sections below.

Table 3-1 – Main information dimensions and sub-information items – Relevance

Category name	Main information dimensions	Code	Sub-information items
Forward-looking information	Annual reports contain forward-looking information which helps to form expectations about the future of the company	FL1.1	Forecasted growth in revenue
		FL1.2	Forecasted growth in profit
		FL1.3	Forecasted growth in earnings per share
		FL1.4	Forecasted growth in market price per share
		FL1.5	Future business opportunities
		FL1.6	Future strategies that are to be used to achieve either revenue or earnings targets
		FL1.7	Factors which influence the revenue or earnings targets
		FL1.8	Forecasted growth in dividends per share
		FL1.9	Information on future non-financial key-performance indicators
Cash flow information	Annual reports contain information about past and future cash flows	CF2.1	Forecasted cash flows
		CF2.2	Past information on cash and cash equivalents
		CF2.3	Past cash flow comparatives more than one year
		CF2.4	Justifications/reasons for the changes of past cash flows
		CF2.5	Information on segmental cash flows (product, sector or geographical)
Segmental information	Annual reports contain segmental financial information	SEG3.1	Segmental information on revenue
		SEG3.2	Comparative information on segmental revenue
		SEG3.3	Segmental information on past profit
		SEG3.4	Segmental profit forecasts
		SEG3.5	Segmental non-financial key-performance indicators
Risk related information	Annual reports contain information on risk relating to financial, market, economic and political concerns	RISK4.1	Information on company risk profiles for the current year
		RISK4.2	Disclosures of risk mitigation plans
		RISK4.3	Comparisons of risk profiles with the past year(s)
Measuring assets, liabilities and equity	Annual reports contain assets, liabilities and equity line items in annual reports are measured using fair value	FV5.1	Assets, liabilities and equity line items in annual reports are measured at historical cost
		FV5.2	Assets, liabilities and equity line items in annual reports are measured at fair value
		FV5.3	Disclosures on the description of the valuation processes used for assets, liabilities and equity items
		FV5.4	Information on changes in fair values of assets, liabilities and equity items.
Capital structure	Annual reports contain information on the capital structure of the company	CapS6.1	Explanations on gearing ratio (debt-to-equity) used by the company
		CapS6.2	Comparative information on the change of capital structure
		CapS6.3	Information on the breakdown of long-term debt

3.2.1 Forward-looking information

Information is useful only when it combines the properties of relevance and faithfully represent (IASB, 2018, p. 16), and has predictive value if it can be used by users to predict future outcomes (IASB, 2018, p. 14). Thus, relevant information helps a user to make predictions about the future, which will clearly be facilitated by forward-looking data. Users employ the predictive value in making their predictions that help decision usefulness (IASB, 2018, p. 15). McDaniel et al. (2002) argue that forward-looking information improves the relevance of information. Beest et al. (2009) and Braam & Beest (2013) note that forward-looking information contributes to the predictive ability of relevance. The continuous provision of future-oriented information will help to improve the value of accumulated past information since the future eventually becomes the past. Thus, it helps to confirm and correct prior expectations that enhance the confirmatory value of information. Information that contains both predictive and confirmatory potential, allows users to influence the decision-making process and supports stakeholders in evaluating the entities' performance and ability to create value (Dimi et al., 2014; IASB, 2010, 2018; Jonas & Blanchet, 2000). Financial reports that provide forward-looking information can assist users in forming expectations about a company's upcoming performance and confirm initial earnings and cash flow projections relevant to users (Bartov & Mohanram, 2004; Beest et al., 2009; IASB, 2018). Therefore, forward-looking information provided by entities describes management's expectations for the future years of the entity. Beattie et al. (2004) discuss that both the IASB and FASB reporting frameworks explicitly propose that financial reporting is enriched by including sections devoted to the communication of forward-looking information. The literature discusses that forward-looking information is an essential aspect of making information useful to users. This observation has been found by several research studies, including Beretta & Bozzolan (2008), who discuss that forward-looking information is capable of conveying value-relevant

information to external users. Jonas & Blanchet (2000) highlight that obtaining a forward-looking perspective is an underlying user's need. Hjelstrom, Hjelstrom, & Sjogren (2014) suggest that forecast ability is a feature of decision-useful information, which is enabled by forward-looking information.

Following the broadly held review above, I now provide specific examples of types of forward-looking information. Baker & Haslem (1973) find that individual investors in the US are mainly focused on expectations about future earnings and providing profit forecasts, as part of forward-looking information. Similarly, Lee & Tweedie (1975) find that the future economic prospects of a company are considered as the most important items of information to UK individual investors. A survey by Chenhall & Juchau (1977) suggested that Australian investors consider seven important factors, and three of these relate to prospective information, namely, expected future increase in share price, future economic outlook of the company and industry, and expected future growth in earnings per share (EPS). Celik, Ecer, & Karabacak (2006) provide examples of forward-looking information such as forecast sales, entity's growth opportunities, next year's targets for growth in revenues, net income, gross margin and for reducing the ratio of expenses to revenues, five-year earnings growth, growth goals for revenue, EPS, and ROE. Beretta & Bozzolan (2008) consider statements about the future strategy to be a part of forward-looking information. Similarly, Robb & Zarzeski (2001) emphasize that future strategy and company trends are forward-looking information. Schleicher & Walker (1999) find that the information in financial reports is important to investors because they can form more accurate anticipation of share-price movements. Wallman (1995) suggests forward-looking information improves the FRQ of annual reports. Edeigba, Gan, & Amenkhienan (2018) note that preparers, as well as users, consider that future-oriented information should be disclosed since it delivers better decision-making for

existing and potential investors in New Zealand. In addition to investors, Danos, Holt, & Imhoff Jr (1989) suggest that factors regarding the firm's financial plans and their underlying assumptions are essential for lenders to build-up their confidence in whether to grant a loan. Demerjian, Donovan, & Jennings (2015) also examine how the perceived accuracy of forward-looking information obtained during debt contract negotiations affects the cost of debt and reveal that lenders use forward-looking information to screen borrowers and assess their creditworthiness.

Research and surveys conducted by professional organisations also identified forward-looking as an important aspect for users. For example, the Association of Investment Management and Research (AIMR, 2000) identifies that the FRQ of companies would improve with more forward-looking information. Research conducted by the American Institute of Certified Public Accountants (AICPA, 1994) indicates that users expect more forward-looking information in business reports. In 2001, the FASB published the study, “Improving Business Reporting: Insights into Enhancing Voluntary Disclosures” and identifies that forward-looking information improves business reporting and notes that business opportunities, management plans, critical success factors and a comparison of actual business performance to previously disclosed management plans are essential sources of information under forward-looking information (FASB, 2001). The report of Pro-active Accounting Activities in Europe (PAAinE, 2009) by the European Financial Reporting Advisory Group states that expected revenue and profits are among the most critical items in financial statements for investors and lenders in Europe. Guidelines given by the Chartered Professional Accountants of Canada (CPA, 2002) emphasise the importance of disclosing strategic views of the business, company visions, critical success factors, capabilities for achieving desired results: all of these are of forward-looking character. PwC (2007) in a guide to forward-looking information states that

communicating targets relating to key performance indicators (KPIs) used to manage the business is an important aspect which should be focused on by entities to satisfy user needs.

The above review shows that forward-looking information is a broad term, and suggests a variety of measures (sub-information items) that may be used to assess it by. These measures are summarised in the following list:

Sub-information items:

- FL1.1: Forecasted growth in revenue (Celik et al., 2006; Chenhall & Juchau, 1977; PAAinE, 2009; further reading: Joshi & Abdulla, 1994; Mirshekary & Saudagaran, 2005; Naser et al., 2003; Stanga, 1980; Stanga & Tiller, 1983; XRB, 2016)
- FL1.2: Forecasted growth in profit (Baker & Haslem, 1973; Celik et al., 2006; Robb & Zarzeski, 2001; further reading: Alattar & Al-Khater, 2008; CASL, 2017;CPA, 2002; Hooks, Coy, & Davey, 2002; Stanga, 1980; Stanga & Tiller, 1983)
- FL1.3: Forecasted growth in earnings per share (Celik et al., 2006; Chenhall & Juchau, 1977; further reading: Alattar & Al-Khater, 2008; Benjamin & Stanga, 1977; Mirshekary & Saudagaran, 2005; Stanga & Tiller, 1983; XRB, 2016)
- FL1.4: Forecasted growth in market price per share (Chenhall & Juchau, 1977; Schleicher & Walker, 1999; further reading: Gniewosz, 1990; Joshi & Abdulla, 1994; Mirshekary & Saudagaran, 2005)
- FL1.5: Future business opportunities (Celik et al., 2006; CPA, 2002; further reading: Joshi & Abdulla, 1994; PwC, 2017)
- FL1.6: Future strategies that are to be used to achieve either revenue or earnings targets (Beretta & Bozzolan, 2008; CPA, 2002; Danos et al., 1989; Robb & Zarzeski, 2001; further reading: CASL, 2017; De Zoysa & Bhati, 2011; Hooks et al., 2002; Mirshekary & Saudagaran, 2005; XRB & McGuinness, 2018)

- FL1.7: Factors which influence the revenue or earnings targets (Celik et al., 2006; CPA, 2002; Robb & Zarzeski, 2001; further reading: De Zoysa & Bhati, 2011; Naser et al., 2003)
- FL1.8: Forecasted growth in dividends per share (Chenhall & Juchau, 1977; further reading: De Zoysa & Bhati, 2011; Joshi & Abdulla, 1994; Naser et al., 2003)
- FL1.9: Information on future non-financial key-performance indicators (PwC, 2007; further reading: CASL, 2017)

3.2.2 Information on predicting future cash flows

Existing and potential investors and lenders need information about future net cash flows to assess the future prospects of an entity. IASB (2018, p. 8) states that "information about a reporting entity's financial performance during a period is useful in assessing the entity's past and future ability to generate net cash inflows...". In general, equity valuation models require information on future earnings and future cash flows. The Conceptual Framework (IASB, 2018, p. 56) states that "information about estimates of the amount, timing and uncertainty of future cash flows, may also have confirmatory value because they provide feedback about previous estimates of value in use or fulfilment value". Similarly, decisions made by existing and potential lenders and other creditors about providing or settling loans and other forms of credit depend on the payments of principal and interest which largely rely on the ability of firms to generate cash flows. Thus, estimates of future cash flow help to improve the relevance of the information provided. The FRQ measurement tools developed by Beest et al. (2009) and Braam & Beest (2013) also considered that analysis of cash flow information provided in annual reports helps to assess the predictive value of relevance.

The literature supports the views that cash flow information is essential for both investors and lenders. Several early studies (e.g., Anderson 1981; Baker & Haslem 1973) recognize that private and individual investors are mainly concerned with expectations about

future earnings and cash flows. Jones, Romano, & Smyrnios (1995) indicate that the cash flow statement is important for a variety of internal and external decision contexts and attracts interest from a range of users, including investors and lenders. Maines & Wahlen (2006) discuss that the predictive ability of accounting information depends on users' ability in processing it into cash flow expectations. The European Financial Reporting Advisory Group (PAAinE, 2009) survey reports that an entity's cash flow generating capacity was the key to making decisions on 'hold/buy/sell', management evaluation and credit assessment. Orpurt & Zang (2009) conclude that the direct method of cash flow is valuable to investors when forecasting future cash flows and earnings, thereby yielding stock prices that better reflect future performance. Cascino et al. (2014) emphasise that the entities should provide sufficient information for estimating future cash flows. A survey on information needs of financial statement users in New Zealand (XRB, 2016) also discusses that both equity investors and lenders use information about the firm's ability to generate earnings from operating cash flows. Ohlson (1980) argues that cash flows provide information about solvency and liquidity, and operating cash flows is a traditional measure in assessing credit and bankruptcy risks. Mirshekary & Saudagaran (2005) revealed that the cash flow statement was identified by all the user groups such as bank loan officers, academics, stockbrokers, bank investment officers, institutional investors, auditors, and tax officers in Iran as a 'great importance' information item. They also, revealed that providing comparative cash flow statements for two years as a moderate importance information item. CASL (2017, p. 37) requires entities to "disclose a description of each key assumption on which management has based its cash flow projections" with reasonable justifications. IAS 1 – *Presentation of Financial Statements* require entities to show comparative amounts to be disclosed with respect to financial statements (IASB, 2009b).

Thus, information that allows investors and lenders to predict future cash flows is very much relevant to their decision-making. That information primarily depends on the degree to which it provides a reliable representation of the associated economic activities that help to determine future cash flows to the firm. Based on the literature reviewed above, the following sub-information items will be considered as measures for FRQ in relation to the QC 'relevance':

Sub-information items:

- CF2.1: Forecasted cash flows (Cascino et al., 2014; further reading: Hjelstrom et al., 2014; Son, Marriott, & Marriott, 2006)
- CF2.2: Past cash flow comparatives for more than one year (Mirshekary & Saudagaran, 2005; IASB, 2009b)
- CF2.3: Past information on cash and cash equivalents (Mirshekary & Saudagaran, 2005; IASB, 2009b)
- CF2.4: Justifications for the changes of past cash flows (operating, investing, or financing cash flows) (Cascino et al., 2014; CASL, 2017)
- CF2.5: Information on segmental cash flows (product, sector or geographical wise classification) (Mirshekary & Saudagaran, 2005)

3.2.3 Information on segmental reporting

IFRS 8 – *Operating Segments* necessitates companies to disclose information and details about their operating segments, products and services and the geographical areas in which they operate (IASB, 2013). Providing such information is not a contentious issue, rather a several studies indicate that segmental information improves the predictive value of financial reports, thus helping investors and analysts to make more accurate forecasts (e.g., Baldwin, 1984; Behn, Nichols, & Street, 2002; Doupnik & Rolfe, 1990; Joshi & Abdulla, 1994; Seese & Doupnik,

2003; Street & Nichols, 2002). Behn et al. (2002, p. 31) note that analysts and institutional investors in the USA value segmental information on geographical sales data, in particular, when "… assessing the risk profile and prospects for growth". Demerens, Delvaille, Manh, & Pare (2017) note that financial analysts of European-listed intermediate-size companies frequently use segment information and embed it into specific segmental valuation models. Chen & Liao (2014) provide evidence that the segmental information is important for lenders. They state that firms that provide more items of segmental information benefit from a lower cost of debt.

Surveys and reports published by professional organizations also support that segmental information is key to users. For example, a survey conducted by PricewaterhouseCoopers (PwC) on investors' views showed that segment information was ranked 'essential information' used by capital market analysts (PwC, 2014, p. 9). The XRB (2016) notes that investment professionals indicated a need for more segment reporting, which would improve the quality of disclosure because it allows users to review the historical performance and to forecast future performance. PwC (2017) revealed that investors annually expect summary financial information, earnings information, management commentary on financial performance, earnings forecast or guidance, and KPIs from companies in the US, the UK, and Europe. AIMR (2000) emphasized that segmental information is one of the significant gaps between the stakeholders' expectations and actual disclosure practices.

Some studies identified the expectations of stakeholders under segmental information. The investor survey conducted by PwC revealed that the most commonly demanded area by investment professionals is segmental information (PwC, 2010). This is somewhat surprising in that International Accounting Standard (IAS) IAS 14 – *Segmental Reporting* (IFRS 8) was

in effect in 1983 (2009, respectively) and required this information to be disclosed considering materiality benchmarks. Aleksanyan & Danbolt (2015) identify revenue, profit, and total assets as the important segmental information for users while a geographic segment of profit data is one of the most critical data types for users. They note that although companies disclose a higher quantity of segmental information under IFRS 8, it reduces the level of specificity of the disclosed geographical segments. Mirshekary & Saudagaran (2005) also revealed that breakdown of different sources of revenue are considered as important information items for users.

Thus, information about segments of a business, be they of geographical, product, entity, or sector type, are relevant to many stakeholders, but investors in particular. From the review above, I extract the following measures (sub-information items) to be associated with the QC 'relevance':

Sub-information items:

- SEG3.1: Segmental information on revenue (IASB, 2013; Mirshekary & Saudagaran, 2005; PWC, 2010; further reading: Benjamin & Stanga, 1977; CASL, 2017; De Zoysa & Bhati, 2011; Hooks et al., 2002; Naser et al., 2003; Stanga, 1980)
- SEG3.2: Comparative information on segmental revenue (IASB, 2013; further reading: Benjamin & Stanga, 1977; CASL, 2017; Stanga, 1980)
- SEG3.3: Segmental information on past profit (IASB, 2013; further reading: CASL, 2017;)
- SEG3.4: Segmental profit forecasts (Aleksanyan & Danbolt, 2015; XRB, 2016; further reading: CASL, 2017; IASB, 2013; Stanga, 1980)
- SEG3.5: Segmental non-financial key-performance indicators (PwC, 2017)

3.2.4 Information on risk and uncertainties

Information relating to the risk and uncertainties of the business is another important information source for users of annual reports. Amran, Bin, & Hassan (2008) counted the space, i.e., importance, in Malaysian annual reports reserved to inform stakeholders about six types of risks. They found that more than 2000 sentences had been used on average, which suggests that information on risks and associated uncertainties are perceived by purposes as relevant information to users. Beest et al. (2009) and Braam & Beest (2013) noted that risk-related information provided in annual reports improve the predictive value of relevance. The Jenkins Committee Report (AICPA, 1994) highlights that information related to risks and measuring uncertainties helps to improve the quality of reporting. Jonas & Blanchet (2000) state that risk information about a company's various business activities helps to assess whether the information permits users to identify and value different real options. Also, they note that information about business opportunities and risks provides probable prospective situations which enhance the accuracy of users' decisions. Therefore, they argue that risk-related information improves predictive value, and thus the relevance of information. Beattie et al. (2004) also argue that the IASB and FASB Conceptual Frameworks explicitly propose to enrich financial reporting, a section devoted to communicating the risk profile of companies ought to be included. For example, the Conceptual Framework states that "...lack predictive value and confirmatory value by not depicting the full effect of the entity's exposure to risk arising from holding the asset or liability during the reporting period" (IASB 2018, p. 64).

Risk-related information is important to investors as well as lenders. Investment decisions require analysis of the risk of the business because it attempts to maximise the expected return on investment under the associated risk exposure. Botosan (2004) surveys institutional investors in the USA and finds a strong demand for increased corporate risk

management disclosure to improve investment decisions. Similarly, Solomon, Solomon, Norton, & Joseph (2000) provide evidence from the UK that institutional investors make a strong demand for corporate risk disclosure to improve portfolio-investment decisions. Linsmeier, Thornton, Venkatachalam, & Welker (2002) provide evidence from the USA on the usage of risk disclosure by investors in that it reduces investors' uncertainty and the diversity of opinions on the market valuations of firms. DeLoach (2000) supports that managers must be able to reassure investors that risks and uncertainties are properly managed by providing information to facilitate the decisions of users. Equally, understanding the uncertainties and risks of a company is important for lenders to assess credit risk. For example, García, Giménez, & Guijarro (2013) discuss that information about opportunities and risks determines i) the investors' use of discount rate in valuing companies, and ii) allows lenders to assess the future credit default probability of entities. However, KPMG (2014) reveals that very few entities provide explanations of risk management processes beyond the legal compliance requirements.

Some professional and regulatory organizations' reports also highlight the importance of risk-related information. For example, New Zealand's XRB (2016) suggests that equity investors look for the inherent risk and yield of their investments, and they expect annual reports to disclose such risks and uncertainties. The CFA (2015) survey 290 investment professionals from the UK on the importance of the annual reports, and 47% of respondents said the disclosure of risks and uncertainties should be enhanced.

The above review focused on user needs survey papers and gives both direct and inferred evidence on the relevance of risk-related information to investors and lenders. Thus, the following information items measure the contribution of risk-related information provided in financial reports towards FRQ through the concept of 'relevance':

Sub-information items:

- RISK4.1: Information on company risk profiles for the current year (Amran et al., 2008; further reading: Cascino et al., 2014; CASL, 2017; FRC, 2017; XRB & McGuinness, 2018)
- RISK4.2: Disclosures of risk mitigation plans (Botosan, 2004; KPMG, 2014; XRB, 2016; further reading: Cascino, Clatworthy, Osma, Gassen, & Imam, 2020; CASL, 2017; FRC, 2017; PwC, 2017)
- RISK4.3: Comparisons of risk profiles with past years (XRB, 2016; further reading: Cascino et al., 2014; CASL, 2017)

3.2.5 Information on fair value

The four information dimensions discussed in the previous sections are similar in that an increase (decrease) in their quality will arguably improve (worsen) the relevance of the information. However, since fair value measurement has been a contentious issue for decades, the above linear relationship may not hold. My focus, therefore, is to find measures for how fair value affects relevance and to limit, as much as possible, to engage in the discussion about whether one method of measurement is better than another.

It is often claimed (e.g., Maines & Wahlen, 2006; Schipper & Vincent, 2003) that fair value accounting provides relevant information to users since it shows the current value of assets. The 2018 IASB Conceptual Framework points out that "if the value of an asset or liability is sensitive to market factors or other risks, its historical cost might differ significantly from its current value" (IASB, 2018, p. 63). This further strengthens the relevance of fair value measurement. Lev (2018) argues that the use of fair value decreases investors' costs of information search (e.g., investors need to adjust historical costs to current values unless a firm

reports current values), and enhances the relevance of financial information, thereby decreasing investors' information risk. McDaniel et al. (2002) and Palea (2014) discuss that fair value increases the relevance of information at the cost of reliability. Gassen & Schwedler (2010) note that professional investors perceive market-based fair values to be decision-useful. AIMR (2000) also recognizes that fair value information is important where investors desire improvements in reporting quality. Use of fair value instead of historical cost in the financial statement was considered as a measure of predictive value in the FRQ measurement indexes developed by Beest et al. (2009) and Braam & Beest (2013).

The fair value view assumes that markets for the measured object are relatively perfect and complete. In such a setting, fair values derived from current market prices will be of arguably high relevance to investors and lenders. In contrast, as discussed by Whittington (2008), markets for many assets, liabilities and equity items are relatively imperfect and incomplete, and the fair value view loses its attraction because it relates poorly to the real world in which standard setters and users function. Under such circumstances, as argued by Hooks et al. (2002), disclosing information on how fair value was assessed will help to manage this problem by allowing users to make their own judgments on the relevance of the fair value information. Penman (2007) puts the former point explicitly: in the absence of proper disclosures about information relating to fair value measurement bases, the use of fair value for decision-making is limited. IFRS 13 – *Fair value measurement*, as well as annual report preparation guidelines issued by CASL, require entities to present information on fair value. For example, it requires entities to present the way they derive fair value including information about the fair value hierarchy used and fair value measurements categories, and changes of fair value during the period with respect to different types of line items (e.g., property plant and equipment, investment property, intangibles, financial assets, and financial liabilities) in the

financial statements (CASL, 2017 & IASB, 2011). Thus, the following sub-information items relate to fair value measurement and the contribution to the QC 'relevance':

Sub-information items:

- FV5.1: Assets, liabilities, and equity line items in annual reports are measured at historical cost (CASL, 2017; Gassen & Schwedler, 2010)
- FV5.2: Assets, liabilities, and equity line items in annual reports are measured at fair value (Beest et al., 2009; Braam & Beest, 2013; CASL, 2017; Gassen & Schwedler, 2010)
- FV5.3: Disclosures on the description of the valuation processes used for assets, liabilities, and equity items (Hooks et al., 2002; IASB, 2011; Penman, 2007)
- FV5.4: Information on changes in fair values of assets, liabilities, and equity items (AIMR, 2000; CASL, 2017; Hooks et al., 2002; IASB, 2011)

3.2.6 Capital Structure

Capital structure refers to the composition of debt and equity employed by a firm to finance its assets. The capital structure information focuses on how the assets are financed by investors and lenders and show how a firm manages its overall operations and growth by using different sources of funds. Managing the capital structure allows financial flexibility and increases the debt capacity to attract new investment opportunities (e.g., Giambona, Golec, & Lopez-de-Silanes, 2020), On the other hand, managing the capital structure incorrectly may lead to financial distress (Alipour, Mohammadi, & Derakhshan, 2015). Braam & Beest (2013) in their FRQ measurement index, considered that the extent of information disclosed in annual reports on financial structure helps to assess both predictive and confirmatory value of relevance.

Prior researchers have identified information on the capital structure of a firm (e.g., Cascino et al., 2014; Mirshekary & Saudagaran, 2005; PAAinE, 2009; XRB, 2016) as key

information expected by investors and lenders to make their decisions. For example, Benjamin & Stanga (1977) identified that both bankers and investors (security analysts) prefer to have a historical summary of debt and equity for at least five years. Cascino et al. (2014) discuss that valuation decisions typically require information such as capital structure information and leverage ratios that help to investors as well as lenders to identify profitability, cash flow level, future market value, as well as asset availability to repay debt. Engle, Ghysels, & Sohn (2013) and Pan, & Liu (2018) support that commentary about the short-term and long-term leverage effects will improve the predictive ability, thus relevance, of information in annual reports and suggest that accounting for leverage effects helps to calculate significantly more accurate volatility forecasts, and the short-term leverage effect contributes more to improve predictive ability.

Thus, the following sub-information items are identified to enhance the QC 'relevance' in relation to the disclosure of capital structure features:

Sub-information items:

- CapS6.1: Explanations on gearing (debt-to-equity) ratio (Cascino et al., 2014; XRB, 2016; further reading: Chenhall & Juchau, 1977; Joshi & Abdulla, 1994)
- CapS6.2: Comparative information on the change of capital structure (Benjamin & Stanga, 1977; PAAinE, 2009; XRB, 2016)
- CapS6.3: Information on the breakdown of long-term debt (Mirshekary & Saudagaran, 2005; XRB, 2016; further reading: Hooks et al., 2002; Joshi & Abdulla, 1994)

3.3 Faithful representation

According to the Conceptual Framework of IASB, "financial reports represent economic phenomena in words and numbers, and for them to be useful, financial information must not only represent relevant phenomena, but it must also faithfully represent the phenomena that it

purports to represent" (IASB, 2018, p. 15). Further, the Conceptual Framework identifies that "faithfully represented information should be complete, neutral and free from error" (IASB, 2018, p. 15). The framework states that "a complete depiction includes all information necessary for a user to understand the phenomenon being depicted, including all necessary descriptions and explanations" (IASB, 2018, p. 15). Completeness can be achieved by providing all quantitative, qualitative, financial and non-financial information relating to numerical figures presented in the financial statements. The neutral depiction of information "is without bias in the selection or presentation of financial information" (IASB, 2018, p. 16). Free from error means there are "no material errors or omissions in the description of the phenomenon, and the process used to produce the reported information has been selected and applied with no mistakes in the process" (IASB, 2018, p. 15). Because people make mistakes, the information generated may not be free from errors. Of course, the solution to make any information decision-useful is to provide supportive information and reasonable justifications that clarifies the process of how, for example, numbers were derived, which may help users to assess the level for 'free from material errors, complete and neutral' (IASB, 2018, p. 16). Importantly, the IASB does not expect a perfectly faithful representation; rather, one should attempt to maximize to the extent possible the qualities that describe it. Similarly, some academic work concurs: Maines & Wahlen (2006) state that estimates that link to the underlying economic constructs and the standards could enhance faithful representation. Botosan et al. (2004) argue that information on the real economic phenomenon is required to reassure faithful representation, and it is challenging to assess faithful representation directly by only considering the annual reports.

There is no direct proxy to assess the faithful representations given by IASB. The following information dimensions and sub-information items are identified to measure faithful

representation and are summarised in Table 3-2, albeit their identification is discussed in relation to each of the information dimensions in the various sections that follow.

Table 3-2 – Main information dimensions and sub-information items – Faithful representation

Category name	Main information dimensions	Code	Sub-information items
Accounting estimates and policies	Annual reports contain valid arguments to support the decisions about accounting estimates and the selection of accounting policies	AcEsPo8.1	The explanation for accounting policies selected
		AcEsPo8.2	The basis for making accounting estimates
		AcEsPo8.3	Explaining the limitations of making accounting estimates and selecting accounting policies
		AcEsPo8.4	The factors affecting the decisions on accounting estimates and the selection of accounting policies
		AcEsPo8.5	Explanations with respect to reasons for changes in accounting estimates and policies
Related party disclosures	Annual reports contain information on related party transaction disclosures	ReP9.1	Providing an independently related-party transactions review committee report
Self-reported positive and negative events	Annual reports contain disclosures relating to both positive (good) and negative (bad) future events	PoNeE10.1	Information on past negative events
		PoNeE10.2	Information on past positive events
		PoNeE10.3	Expected future negative information
		PoNeE10.4	Expected future positive information

3.3.1 Justifications for accounting estimates and policies

One of the main concerns that hinder the faithful representation of information is the use of accounting estimates and policies based on management judgements. Since accounting necessarily involves making reasonable accounting estimates, judgments and choices of accounting policies that involve human bias, it is not reasonable to expect perfect faithful representation of information by entities. The framework supports to this argument, stating that "perfect completeness, neutrality and free from error are seldom, and entities should attempt to

achieve those qualities to the extent possible" (IASB, 2018, p. 15). In fact, it states that "the use of reasonable estimates is an essential part of the preparation of financial information and does not undermine the usefulness of the information if the estimates are clearly and accurately described and explained" (IASB, 2018, p. 16). Thus, as a remedy for this, the IASB (2018, pp. 15-16) encourages entities to explain substantial facts about the quality and nature of the items, factors, and conditions that might impact their quality and nature, and the process used to decide the numerical representation to ensure complete depiction. The framework also suggests that "representation of estimates can be faithful if the amount is described clearly and accurately as being an estimate, the nature and limitations of the estimating process are explained, and no errors have been made in selecting and applying an appropriate process for developing the estimate" (IASB, 2018, p. 16).

Moreover, disclosing information on the selection of accounting principles and the calculation of estimates increases the likelihood that users will understand the measurement methods and underlying policies on financial figures, ultimately improving the quality of decisions. Beest et al. (2009) suggest that when the rationale of selected accounting principles is evidently described and logical, it increases the likelihood of reaching consensus and identifying misstatements the financial report. To improve the reliability and verifiability[17] of financial information, Jonas & Blanchet (2000) discuss the importance of disclosing information relating to making accounting estimates, judgements, and the selection of accounting policies. They highlight that key estimates and assumptions used by management could be validated by examining whether the company used independent experts or sophisticated numerical methods to confirm or develop those. The importance of disclosing

[17] Before 2010, Conceptual Framework of IASB considered the verifiability as a sub-concept in faithful representation

such information is further evidenced by the study conducted by Nobes & Stadler (2015) who highlight that representational faithfulness is one of the reasons for accounting policy changes. FRC (2017) also reveals that companies should pay particular attention to properly explaining and quantifying key judgments and estimates.

Hence, the provision of underlying assumptions, estimates, and judgments as well as information on the rationale for formulating those, will increase transparency, comparability and ultimately decision usefulness in that the user may assess the degree to which the information is neutral, free from error and complete. Justification of the selection of accounting policies and estimates will benefit all the users who use financial information for their decision-making. Supporting that, the literature (e.g., Al-Ajmi, 2009; Benjamin & Stanga, 1977; Chenhall & Juchau, 1977; De Zoysa & Bhati, 2011; Mirshekary & Saudagaran, 2005; Naser et al., 2003; Stanga & Tiller, 1983) provides evidence to show that changes in accounting policies are an important source of information to investors' and lenders' decision-making. Thus, the following sub-information items were selected to be measures for the QC 'faithful representation':

Sub-information items:

- AcEsPo8.1: The explanation for accounting policies selected (Beest et al.,2009; IASB, 2018; Mirshekary & Saudagaran, 2005; further reading: Benjamin & Stanga, 1977; Naser et al., 2003)
- AcEsPo8.2: The basis for making accounting estimates (Beest et al., 2009; IASB, 2018; Mirshekary & Saudagaran, 2005; further reading: Al-Ajmi, 2009; Benjamin & Stanga, 1977; FRC, 2017; Naser et al., 2003)

- AcEsPo8.3: Explaining the limitations of making accounting estimates and selecting accounting policies (FRC, 2017; further reading: Hooks et al., 2002)
- AcEsPo8.4: The factors affecting the decisions on accounting estimates and the selection of accounting policies (Beest et al., 2009; IASB, 2018; Further reading: Al-Ajmi, 2009)
- AcEsPo8.5: Explanations with respect to reasons for changes in accounting estimates and policies (FRC, 2017; Jonas & Blanchet, 2000; further reading: Cole, Branson, & Breesch, 2012; Joshi & Abdulla, 1994; Stanga, 1980)

3.3.2 Related party disclosures

It is a common business practice to engage in transactions with related parties. According to IAS 24 – *Related Party Transaction*, a related-party transaction is "a transfer of resources, services, or obligations between a reporting entity and a related party", such as executives, the board of directors, and primary shareholders (IASB, 2009a, p. 9). IAS 24 requires entities to provide information about their transactions and outstanding balances that relate to related parties and affect assessments of entities' operations by users of financial statements. However, Ge, Drury, Fortin, Liu, & Tsang (2010) argue that accounting manipulations linked with related party transactions are often a factor in corporate scandals and equally a factor in the deterioration of perceived earnings quality. Since the related party transactions are attached to insiders of the firms and present opportunities to expropriate firm resources, Gordon & Henry (2005) discuss that users, such as regulators, market participants, and other corporate stakeholders, may consider that related party transactions likely harbour conflicts of interest. This, in turn, may affect the agency responsibility of management to shareholders or a board of director's monitoring function, leading to a principal-agent problem. Therefore, disclosing information about related party transactions will help management to demonstrate to users that business transactions and events are presented faithfully.

Academic studies emphasise the impact of related party transactions to users. Gordon, Henry, & Palia (2004) examine related party transactions in a sample of 122 firms in the years 2000 and 2001. They found that industry-adjusted returns are negatively associated with related party transactions. Subsequently, Gordon et al. (2012) and Kohlbeck & Mayhew (2010) found that firms which have related party transactions report to record significantly lower valuations and marginally lower subsequent returns than no-related party transactions firms. Cullinan, Du, & Wright (2006) also examined 106 revenue misstatements during the 1997–2002 period. They revealed that companies that granted loans to their executives are more likely to misstate their financial statements, which directly affected the free from errors concept and neutrality.

Providing information about related party transaction disclosures is thus seen as a factor of faithful representation, and I thus include it as a sub-information item:

Sub-information item:

- ReP9.1: Providing an independent related party transactions review committee report (Gordon et al., 2012; IASB, 2009a; Kohlbeck & Mayhew, 2010)

3.3.3 Presenting positive and negative events

According to IASB, "a neutral depiction is not slanted, weighted, emphasised, de-emphasized or otherwise manipulated to increase the probability that financial information will be received favourably or unfavourably by users" (IASB, 2018, p. 16). Clatworthy & Jones (2003) discuss that narrative information with respect to positive as well as negative events relating to the future of the business is widely used for the investment decisions of private and institutional investors in the UK. Their finding suggests that both top 50 and bottom 50 listed companies prefer to emphasise the positive aspects of their performance than negative aspects. FRC (2017) reveals that companies should pay particular attention to providing a fair and balanced

assessment of performance and prospects that includes both positive and negative aspects. Teixeira (2004) also states that annual reports and specifically management commentary should include bad news as well as good news, whereas the absence of bad news together with the good news in management commentary could be incomplete and biased (losing neutrality). As stated by Jonas & Blanchet (2000), neutrality is about "objectivity and balance". Beest et al. (2009, p. 13) stated that "…the preparer should strive for an objective presentation of events rather than focusing solely on the positive events that occur without mentioning negative events". Beest et al. (2009) and Braam & Beest (2013) noted that the extent of information on positive and negative events provided in annual reports help to assess neutrality and completeness as sub-sections of faithful representation.

In practice, firms are aware of the effects of providing bad news and often refrain from doing so. For example, Chatterjee, Tooley, & Fatseasa (2008) reveal that New Zealand annual reports significantly lacked the 'balance' of providing information, which helps to retain neutrality, as a result of overemphasised good news whereas bad news is sparingly reported. Kothari, Shu, & Wysocki (2009) argued that managers delay the release of bad news to investors and immediately release the good news to investors. Therefore, the degree of the negative stock price response to bad news disclosures is superior to the degree of the positive stock price reaction to good news disclosures. Cascino et al. (2014) found that firms making timely disclosures are less probable to refuse bad news related to debt providers, and this will help them to obtain better credit. Aerts, 1994; Clatworthy & Jones, 2003; Staw, McKechnie, & Puffer, 1983 demonstrate that management usually attributes the good performance to themselves in a self-serving manner rather than reporting performance objectively. Therefore, it is understandable that providing negative events over positive events will show management integrity in financial reporting, which helps to show the neutrality is an important element in faithful representation.

In summary, the level of balanced reporting is a key concept for faithfully representing firm transactions and events. Thus, providing information about positive (good) and negative (bad) news relates to the QC 'faithful representation' and is measured with the following sub-information items:

Sub-information items:

- PoNeE10.1: Information on past negative events (Beest et al., 2009; Chatterjee et al., 2008; Clatworthy & Jones, 2003; FRC, 2017; Kothari, Shu, & Wysocki, 2009; Teixeira; 2004)
- PoNeE10.2: Information on past positive events (Beest et al., 2009; Chatterjee et al., 2008; Clatworthy & Jones, 2003; FRC, 2017)
- PoNeE10.3: Expected future negative information (Chatterjee et al., 2008; Clatworthy & Jones, 2003; FRC, 2017; further reading: Benjamin & Stanga, 1977; PwC, 2017)
- PoNeE10.4: Expected future positive information (Chatterjee et al., 2008; Clatworthy & Jones, 2003; FRC, 2017)

3.4 Understandability

In general, understandability is a precondition of information usefulness for all the user groups, including investors and lenders, since the information that cannot be understood to users is of no use. The IASB Conceptual Framework states that "classifying, characterising and presenting information clearly and concisely makes it understandable" (IASB, 2018, p. 19). The FASB puts it similarly in the Statement of Financial Accounting Concepts (SFAC) No.2 in that information is not useful if it is not understandable to its target users. According to the IASB mission statement, one of the main objectives of the IASB has been to develop in the public

interest, a single set of high quality, *understandable*, enforceable and globally accepted financial reporting standards based on clearly articulated principles.[18]

Jang & Rho (2016) investigate the understandability of Korean annual reports upon IFRS adoption and conclude it to be an essential prerequisite for accounting information usefulness. Cheung et al. (2010) state that the better the understanding of the information by users, the higher the quality of information. Understandability is thus one of the important QCs that reflect information quality.

The emphasis that the IASB puts on understandability in financial reporting is evidenced in that it is one of four enhancing QCs for accounting information. Understandability has become more prominent than ever due to a rapidly growing user population of IFRS, specifically in non-English speaking countries such as Sri Lanka. As I will show later in my results, understandability has been stated by Sri Lankan investors and lenders as the most important QC (cf. Chapter 7). This falls in line what has been said a long time ago: Morton (1974) reported that even sophisticated investors of accounting information prefer understandable information. He revealed a positive association between relevance and understandability as well as a positive association between investor information usefulness and understandability.

IASB's definition of understandability mentioned above emphasises narrative reports and notes to financial statements. Herath & Albarqi (2017) find that the usage of graphs and tables supports to present information clearly, and the usage of clear language and avoidance of technical jargon that can be followed easily. Thus, readability is one of the major proxies

[18] See https://www.iasplus.com/en/standards/other/preface

used for understandability by previous researchers (e.g., Adelberg & Lewis, 1980; Jang & Rho, 2016). In their quality index, Braam & Beest (2013) use information on the addition of tables or graphs, the use of technical jargon and the presence of a glossary to test the understandability of financial reports. As before, I provide below an overview of measures (cf. Table 3-3) for the QC 'understandability' which details I will discuss in the sections to come.

Table 3-3 – Main information dimensions and sub-information items – Understandability

Category name	Main information dimensions	Code	Sub-information items
Readability	Readability of annual reports	Redabi11.1	Length of sentences to explain information
		Redabi11.2	Use of non-technical terms (words) to explain information
Glossary of terms	A glossary of terms provided in annual reports	GloT12	The usefulness of glossary of terms provided in annual reports
Graphical information	Use of graphs, charts or tables to explain information	Grainf13.1	Annual reports that contain infographics to present information
Notes to financial statements	Use of notes to explain the line items in the financial statements	Notes14.1	Level of details in the notes to financial statements

3.4.1 Readability of annual reports

According to the Oxford English Dictionary, readability is the "fact of being easy, interesting and enjoyable to read". In general, for information to be easily understandable, primarily it should be easily readable. Therefore, the literature (e.g., Cheung & Lau, 2016; Greenspan & Hartwell, 2009; Jang & Rho, 2016) has examined the readability of financial reports as a quantifiable proxy to examine understandability. Rennekamp (2012) note that investors respond more strongly to a more readable disclosure, and intend that more readable accounting

information is also more reliable. Fisher, van Staden, & Richards (2019, p. 78) note that corporate reports contain "…inaccessible writing styles, excessive sentence lengths, overuse of technical jargon and excessive wordiness". They discussed that more studies in literature measured readability in terms of textual complexity. Iu & Clowes (2004) support that the use of technical jargon included in annual reports negatively affect understandability. PwC (2017) suggest that companies need to be better at transparency and to use 'readable' and 'understandable' language so that people can understand what annual reports are trying to say.

Among several readability index formulas such as the Gunning Fog Score, Coleman Liau Index, and Automated Readability Index (ARI), the Flesch Index is widely used in testing readability. Most of the readability indexes were based on the initial work of Flesch (1948), which was on the length of the words and sentences. As one of the widely used software, Microsoft-Grammarly also uses the Flesch score in their readability report. Flesch score principally assumes that shorter words and sentences are more readable than longer ones (Flesch,1948). Courtis (1995, p. 5) concurs in the readability of annual reports study that understandability is important in that "… those responsible for narrative sections of the annual report typically are writing corporate messages at a reading level beyond the educational skills of their target audience". Other studies have examined the readability of information. For example, Biddle et al. (2009) and Cheung & Lau (2016) examined the readability of financial disclosures using the Gunning FOG Index. Cheung and Lau observe that the length of the notes to the financial statements and their readability increased and improved, respectively, after adopting IFRS. They further state that when many long sentences and multi-syllabic words are included, readability suffers. Jang & Rho (2016) measured financial statement and related footnote readability of IFRS compliant and non-compliant Korean annual reports using the Flesch Reading Ease formula. They revealed that the IFRS-based financial statements have

significantly lower readability than non-adopted firms' financial statements. DuPree (1985) found that unprofessional shareholders prefer descriptive information over technical and less-understandable terminology, while sophisticated shareholders (CPAs) prefer technical terminology over descriptive. This provides evidence that the inclusion of technical terms (jargon, uncommon words) affect the understandability of ordinary users. Smith & Smith (1971) use two different readability formulas (Flesch & Dale-Chall) with which they tested the understandability of notes to the financial statements of 50 entities in Fortune's list (1969): they concluded that understandability of notes is poor. Similarly, Healy (1977) revealed that large companies (usually public entities) are apparent as providing less readable notes than small companies (usually private entities).

The above discussion shows that understandability (QC) is linked with readability (information dimension) which is linked with the choice of words and sentences preparers of annual reports make. I, therefore, re-formulate the latter into the following measures (sub-information items):

Sub-information items:

- Redabi11.1: Length of sentences to make annual reports easily readable (Biddle et al., 2009; Jang & Rho, 2016; further reading: Flesch, 1948; FRC, 2017; PwC, 2017; Scott & Smith, 1992)
- Redabi11.2: Annual reports that use more non-technical terms (words) to explain information (DuPree, 1985; Iu & Clowes, 2004; further reading: FRC, 2017; Scott & Smith, 1992)

3.4.2 Glossary of terms

Arguably financial reports are more understandable when they include a separate glossary which explains the terms and jargons used to explain information in the annual reports. The

Accounting Principles Board, in Statement on Accounting Principles No.4, of AICPA (AICPA, 1970, para. 89) notes that "…understandable financial accounting information presents data that can be understood by users of the information and is expressed in a form and with terminology adapted to the users' range of understanding". Greenspan & Hartwell (2009) report that the FASB Chairman Robert Herz, suggests that including a glossary of key technical terms used within the financial reports is a possible way to improve the understandability.

Some literature uses the glossary of terms as a proxy for assessing understandability. For example, Manli (2007) studies the level of understandability of university students (assumed to be non-professional investors) and shows that the understanding difficulty for them could be significantly reduced by providing definitions or explanations of accounting terms. The Financial Reporting Council-UK (FRC, 2017) advises preparers of information that the language used should be precise, that complex accounting and reporting issues should be explained clearly, and that jargon and boilerplate text should be avoided. However, the use of technical jargon, such as industry-specific terminology, is unavoidable in accounting reports. Therefore, an explanation in the form of a glossary can improve understandability (Beest et al., 2009; Braam & Beest, 2013; Jonas & Blanchet, 2000). I thus propose that the following sub-information item will capture the aspect discussed above in relation to the QC 'understandability':

Sub-information item:

- GloT12: An annual report that contains a glossary of terms (Beest et al., 2009; FRC, 2017; Greenspan & Hartwell, 2009; Manli, 2007)

3.4.3 Graphs and charts

Corporate annual reports, especially in the voluntary sections, consist of narrative information that may be enhanced by graphical aids which visualize information. Graphs, charts and diagrams help to make information more meaningful and understandable to any user group of annual reports. This is supported by a KPMG survey about business reporting which discusses that diagrams are becoming increasingly popular as a basis for explaining the business model and as a substitute for details (KPMG, 2014). Beest et al. (2009) and Jonas & Blanchet (2000) also supported that, in general, the presence of tables and graphics formats enhance understandability by clarifying relationships and emphasizing the importance of information**.** Beattie & Jones (2008) note that graphs allow management to present annual report information in a flexible, summarising, eye-catching, and memorable way and ultimately help users to make the texts more understandable. Manli (2007) states that with the help of various forms of graphs, investors can quickly make judgments about the current, overall operational status of the company. However, Stone & Lodhia (2019) highlight that overuse of complex presentation techniques may result in decreased readability.

Beattie & Jones (2001) show that annual reports of a multi-national sample of public companies tend to show key performance highlights such as sales, earnings, dividends per share, earnings per share, return on capital employed and cash flow, in the form of graphical presentations. Some years later, Beattie & Jones (2008) come to the same conclusion and state that graphs capture the performance of a company by emphasizing key performance indicators such as sales and earnings per share over time.

Another aspect of providing graphical information has been discussed by Leary & Kowalski (1990). They identified that the annual reports of public companies use visual

representations to communicate financial information, especially as a tool of impression construction, and it has become a mode of presenting a company's overall disclosure strategy. Beattie & Jones (2000) also provide evidence that graphs in the corporate annual report are used as an impression management tool by companies in Australia, Netherlands, the UK and the USA. Laidroo (2016) investigated the changes in the reliability of graphs presented in the annual reports of Central and Eastern European (CEE) commercial banks during crisis and non-crisis periods and found that, on average, one-third of the graphs disclosed by banks appeared to have a favourable measurement-distortion bias.

The word 'infographics' stands for graphic, visual representations of information, data or knowledge and thus is a basket for the visual aids discussed above. I, therefore, use it to measure the QC 'understandability':

Sub-information item:

- Grainf13.1: Annual reports that contain infographics to present information (Beattie & Jones, 2008; Jonas & Blanchet, 2000; further reading: Manli, 2007; Scott & Smith, 1992; Stone & Lodhia, 2019)

3.4.4 Amount of notes

IASB's Conceptual Framework recognizes that accounting policies and notes are a part of a complete set of financial statements. According to the Conceptual Framework, the most understandable way to provide information relating to measurement bases used in financial statements is to provide them in the notes (IASB, 2018, p. 69). According to IAS 1 – *Presentation of Financial Statements*, notes should be presented systematically with cross-references to the face of the financial statements, and the standard also guides what information should be presented. For example, it requires notes to "… provide additional information that is not presented elsewhere in the financial statements but is relevant to an *understanding* [italics

added] of any of them" (IAS 1, para. 1.112). Thus, notes will enhance the understandability of financial information. However, it depends on management judgment which information should be included to improve the understandability.

In examining the annual reports practices of Sri Lankan listed entities, I observed a significant deviation of the number of notes provided to clarify individual line items given on the face of financial statements, i.e., some companies explained almost all the line items in notes while some did not at all. The disclosure quantity and quality are not distinguishable in most of the empirical settings, and there are views (e.g., Botosan, 2004) that disclosure quality is inherently immeasurable. Beretta & Bozzolan (2008) argue that researchers usually presume that the extent of the disclosure (i.e., quantity) is an acceptable measure of the quality of disclosure.

Additionally, some literature looks at the level of disclosure in association with improvements in understandability. For example, Anderson & Epstein (1995) investigate the usefulness of annual reports to individual investors in Australia and state that they prefer additional disclosures of both quantitative and qualitative forms. Beretta & Bozzolan (2004) reveal that disclosure of information, in particular, the notes to the financial statements, is important in terms of explaining and providing more understanding into earnings figures. Beest et al. (2009) and Iu & Clowes (2004) recognise that the narratives of annual report descriptions help to increase the understandability of information. Several other papers (e.g., De Zoysa & Rudkin, 2010; Ehalaiye, Laswad, Botica Redmayne, Stent, & Cai, 2018; Gassen & Schwedler, 2010; Yap, 1997) support the view that investors and lenders recognise that notes to financial statements are an important and reliable source of information to make their decisions. Hence,

understandability can be assessed through the extent of notes provided to explain line items presented on the face of the financial statements:

Sub-information item:

- Notes14.1: Level of details in the notes to financial statements (Anderson & Epstein, 1995; Beretta & Bozzolan, 2004; Iu & Clowes, 2004)

3.5 Comparability

"Comparability is the qualitative characteristic that enables users to identify and understand similarities in, and differences among, items" (IASB 2018, p. 17). Jonas & Blanchet (2000) state that comparability focuses on accounting for similar transactions and events in a similar way. Hoitash, Hoitash, Kurt, & Verdi (2018, p. 2) also define financial statement comparability "… as the extent to which line items in a firm's financial statements are similar to those reported by other firms in the same industry". Though this definition narrowly defines comparability, since the main line items of financial statements are standardised and prescribed by IAS 1, the study reveals that comparability in the income statement is useful in forecasting earnings (for investors) and comparability in the balance sheet is important to assess credit risk (for lenders) as specific benefits of comparability.

The IASB, through IFRS, focuses on improving the comparability of information to improve the decision usefulness. For example, as I discussed in Section 2.1, the IASB mission statement goal is to achieve transparency by enhancing the international *comparability* (Pacter, 2017). The Conceptual Framework states that "… information about a reporting entity is more useful if it can be compared with similar information about other entities and with similar information about the same entity for another period or another date" (IASB 2018, p. 17). Cole et al. (2012) also state that initially, the European Union (EU) introduced IFRSs to ensure a

high level of transparency and *comparability* of the financial statements of all listed companies. Hence, comparability allows users to evaluate different alternatives in their decision-making, thereby enhancing the use of the information. That means that comparability will be enhanced if the current period company information can be compared with historical information, similar entities, and similar industry information. One obvious way to provide comparability is to provide more analysis of the information presented (e.g., providing a financial review with ratio analysis). Also, comparability will be improved by consistent application of accounting principles and methods. According to the Conceptual Framework, "consistency refers to the use of the same methods for the same items, either from period to period within a reporting entity or in a single period across entities" (IASB, 2018, p. 18). Hence, comparability is the goal, while consistency helps to achieve that goal.

Comparability helps investors and lenders. On the former group, Hoitash et al. (2018) discover that financial statement comparability reduces information processing costs that helps to forecast entities' performance for analysts. On the latter group, they note that credit rating agencies use comparability information. Additionally, comparability provides benefits such as lower expected cash risk (Kim, Li, Lu, & Yu, 2016), lower cost of equity (Imhof, Seavey, & Smith, 2017) and lower private loan interest spread (Fang, Li, Xin, & Zhang, 2016).

The following information dimensions (cf. Table 3-4) are, therefore, measures for comparability, and I shall discuss the sub-information items that relate to each of them in the sections that follow.

Table 3-4 – Main information dimensions and sub-information items – Comparability

Category name	Main information dimensions	Code	Sub-information items
Comparative information	Annual reports contain comparative financial information	ComInf15.1	Discussion of comparative information relating to revenue and profit
		ComInf15.2	Comparison of the firm's current year revenue and profit with the relevant forecasts made in the previous year
		ComInf15.3	Comparison of company information with industry and economic information
		ComInf15.4	Discussion on non-financial key performance indicators compared to last year
Financial ratios	Annual reports providing financial index numbers and financial ratios	Ratio16.1	Information relating to an analysis of financial position and performance using ratios

3.5.1 Comparative information

IAS 1 – *Presentation of Financial Statements* requires that "comparative information should be disclosed for all amounts presented in financial statements, both on the face of the financial statement as well as in the notes" (IASB, 2009b, para. 1.38). As per IAS 1, the minimum requirement is to present at least one prior year of information together with the current year financial statements to allow users to compare information to facilitate their decisions.

Beattie & Jones (2001) and Beretta & Bozzolan (2008) state that it is usually presumed that the degree of disclosure is an adequate measure of the quality of disclosure even though it is not the only measure of the quality of disclosures. Providing comparative information on a past number of years will, therefore, improve the quality of information and allow users, such as lenders and investors, to make predictions in their decision-making. Supporting this, Cole et al. (2012) conducted a survey using analysts, auditors and other users in European communities. They identified that comparability of financial statements of the same company over time is the most (highly ranked by respondents) significant way of maintaining

comparability of financial statements. Also, Mirshekary & Saudagaran (2005) reveal that comparative information in the income statement and balance sheet is 'greatly important' for all users in their decision-making. Also, they recognise industry trend information as 'moderately important' information. In a survey of the information needs of users in New Zealand, the XRB (2016) reports that a five-year financial statement summary is useful information for investors. Stanga & Tiller (1983) identify that revenue and net income comparatives for the most recent years are a very important piece of information for loan officers in small and large banks in the USA. Benjamin & Stanga (1977) also note that a historical summary of the last five years of information is among the most important information demanded by bankers as well as financial analysts in making their decisions. An online perception survey conducted by Cole et al. (2012) with European analysts, auditors and other users (academics, consultants, employees and creditors) revealed that the most important type of comparability is comparability of financial statements over time within the same industry.

A corporate performance survey conducted by PwC revealed that operational and financial KPIs are important for company analysis, and they could be linked to company strategies to improve the comparability of information (PwC, 2014). Similarly, annual report preparation guidelines of CASL also require entities to report KPIs that combine financial measures with other components (narrative reports) in annual reports. Also, it requires entities to present "quantitative and qualitative disclosures, including comparative information for prior periods and targets for future periods" (CASL, 2017, p. 154). Hooks et al., 2002 studied the information gap in annual reports of companies attached to the electrical industry in New Zealand. They revealed that forecast earnings and profit for the next year is 'moderately important', and the discussion of major factors affecting next year's sales and comparison of

actual performance to previously disclosed information is ‘very important’ information to improve disclosure quality of annual reports.

Therefore, providing comparative information for several years will facilitate comparability of information and help to achieve the prediction accuracy of the information for both investors and lenders. Comparative information is assessed using the following sub-information items:

Sub-information items:

- ComInf15.1: Discussion of comparative information relating to revenue and profit (Cole et al., 2012; Mirshekary & Saudagaran, 2005; Stanga & Tiller, 1983; XRB, 2016; further reading: Naser et al., 2003)
- ComInf15.2: Comparison of the firm’s current year revenue and profit with the relevant forecasts made in the previous year (Hooks et al., 2002; further reading: De Zoysa & Bhati, 2011; Gniewosz, 1990)
- ComInf15.3: Comparison of company information with industry and economic information (CASL, 2017; Cole et al., 2012; further treading: FRC, 2009; Ross, 1977; Scott & Smith, 1992)
- ComInf15.4: Discussion on non-financial key performance indicators compared to last year (CASL, 2017; PwC, 2014)

3.5.2 Ratio analysis

Financial ratios are one of the tools used by internal and external users, for making economic decisions, including investment, lending and performance evaluation decisions. Arkan (2016) discussed that a common way a practitioner assesses the relative values of stocks is to compare the numbers presented in financial statements using financial ratios. One of the main

advantages of using financial ratios (as opposed to raw data) is that they allow for easy comparison when assessing effectiveness and efficiency (e.g., activity, solvency, liquidity, performance ratios) across time within the company and between companies. Delen, Kuzey, & Uyar (2013) support the above in that financial ratio analysis is used to make comparisons among firms across periods, firms within an industry or between industries, as well as with competitor firms. Therefore, providing ratios in annual reports will help users to compare the information with a historical view, with competitors, as well as with industry benchmarks. Providing financial ratios in annual reports were considered as a measure of comparability in the FRQ measurement indexes developed by Beest et al. (2009) and Braam & Beest (2013).

Financial ratios are helpful to investors as well as lenders. Arkan (2016) and Pech, Noguera, & White (2015) used the analysis of financial ratios to explain the performance of entities with the behaviour of stock returns and report that ratio analysis is an important tool for investors to make decisions. Ross, Westerfield, & Jordan (2008) stated that financial ratio analysis provides benefits to entities in projecting the future by supplying historical information to investors as well as providing information to creditors. Delen et al. (2013) support that financial ratios are also used to predict future performance for bankruptcy prediction and credit ratings. A more detailed overview about the importance of particular ratios for investors and lenders that improve the comparability of information follows; investors frequently use earnings per share (XRB, 2016), dividend per share (Mirshekary & Saudagaran, 2005), ROA (Delen et al., 2013; Stent, Bradbury, & Hooks, 2010), ROE (Delen et al., 2013; Wieczynska, 2016) and PE ratios (Cascino et al., 2014). Lenders favour solvency (PAAinE, 2009) and liquidity (Joshi & Abdulla, 1994; PAAinE, 2009) ratios, working capital and leverage ratios (Cascino et al., 2014) and EBITDA to total liabilities (Cascino et al., 2014).

Above I have shown that financial ratios are used as comparative information, and the provision of these improves the FRQ. Thus, the following sub-information item is considered:

Sub-information item:

- Ratio16.1: Information relating to an analysis of financial position and performance using ratios (Arkan, 2016; Delen et al., 2013; Ross et at., 2008; further reading: PAAinE, 2009; Pech et al., 2015)

3.6 Verifiability

According to the Oxford English Dictionary, verifiability means "able to be checked or demonstrated to be true, accurate, or justified". The IASB Conceptual Framework defines verifiability as "that a group of people would reach consensus opinion, perhaps even agree on, that a particular depiction is a faithful representation" (IASB, 2018, p. 18). Though the IASB Conceptual Framework recognises verifiability as a separate enhancing QC, it states that faithful representation is improved by verifiability since the verification confirms that information is faithfully represented. The literature explains verifiability in different ways. For example, Jonas & Blanchet (2000) argue that verifiability emphasises the accuracy, use of estimates, and reliance on assumptions, the ability to quantify and measure, and the level of support and evidence. Lisowsky, Minnis, & Sutherland (2017) state that information is verifiable when different agents look at the same underlying data and derive from it a similar result.

Generally speaking, auditor reports, particularly from Big 4 firms, or any other third-party confirmation is a valuable source to indicate verifiability of information. The audit report is one of the components which users consider as an independent third-party confirmation that verify (to a certain degree) information for their decisions. Mirshekary & Saudagaran (2005) identified that the audit report is the second most important piece of information required by

all the stakeholders in Iran. Al-Ajmi (2009) determined that the audit report is the next most important part of an annual report after the financial statement section for Bahrain investors. Further, Francis & Yu (2009) and Robu & Robu (2015) support that audits conducted by Big 4 auditors provided higher-quality audits than other small firms, which enable a high level of verification of information for users. However, the audit report focuses mainly on financial statement information. Therefore, firms focus on providing independent third-party assurance reports for narrative information such as corporate governance report and environmental report provided in annual reports. Accordingly, the following sub-information items that relate to third-party verification are identified and discuss below, and Table 3-5 gives preview of my findings.

Table 3-5 – Main information dimension and sub-information items – Verifiability

Category name	Main information dimensions	Code	Sub-information items
Audit Report	Annual reports Providing an audit report for the financial statements	AuR7.1	A financial statement with unmodified audit opinion compared to the modified audit opinion
		AuR7.2	Providing independent third-party assurance for narrative reports
		AuR7.3	Annual reports which have been audited by the global audit firms (Big-4 audit firms)

3.6.1 Audit report or other third-party reports

The audit report provides an independent opinion about the true and the fair view of the presentation in financial statements and significant aspects of the financial position and performance, in accordance with an applicable reporting framework (Robu & Robu, 2015). Jonas & Blanchet (2000) also provided a similar view stating that the audit report is an independent third-party expression for the true and fair view of the financial statements. Cordoș & Fulop (2015) discussed that users criticise the audit report since it uses standardised language and does not explain the way of forming the opinion within the audit report. Therefore, recent

changes have been made by the International Auditing and Assurance Standards Board (IAASB) to the audit report, for example, adding Key Audit Matters (KAM) to the audit report format.

The academic literature supports the role of audit reports in ensuring that information is verified. For example, Peasnell (1993) recognised that auditors increase the credibility of financial statements by verifying management estimates. Beest et al. (2009) note that audit reports are one of the constructs that depict verifiability of financial statements, though audit reports do not cover the content of the whole annual report. Inclusion of unqualified audit report was considered as a measure of verifiability in the FRQ measurement indexes developed by Beest et al. (2009) and Braam & Beest (2013). Maines & Wahlen (2006) also support that an unmodified audit report is a necessary condition to perceiving the financial reporting information as being reliably and faithfully represented.

Researchers have discussed the significance of the audit report in decision-making. Duréndez Gómez-Guillamón (2003) revealed that Spanish banks strongly agreed that the type of audit opinion issued by the auditor influences their lending decisions specifically for the amount of the loan to be granted. Further, their study pointed out that analysts indicated that the auditor's type of opinion does influence the decision on whether to invest or not in a company, as well as on the amount to be invested. Gaeremynck & Willekens (2003) and Willekens (2008) examined the impact of the audit report on the economic value of the firm. They concluded that the auditors' report adds value to information presented in annual reports by providing reasonable assurance about the true and fair view of economic phenomena, ultimately helping in verifying information. A similar view was held by Robu & Robu (2015). They analysed the influence of the audit report of listed companies in Romania

and concluded that the form of the audit report significantly influences the investors' decision in the financial market regarding stock acquisition or sale, and these decisions have a considerable impact on the stock return. The impact of recent changes to the audit report of adding a KAM paragraph was investigated by Christensen, Glover, & Wolfe (2014). They revealed that investors who receive a KAM paragraph are probable to alter their investment decisions than investors who obtain a standard audit report.

Showing the significance of the audit report to lenders, Minnis (2011) stated that audited entities enjoy a lower cost of debt and that lenders concern more on audited financial information in deciding the interest rate of US firms. Lisowsky et al. (2017) revealed that financial statement verification via auditing is an important input for debt financing, and independently verified financial statements are associated with future borrower performance. They further stated that unmodified audit opinions are generally regarded as the highest level of verification for banks in the construction sector in the USA. Hence, it is understandable that verifiability helps both lenders and investors in their decision-making.

The auditor's report is mostly concerned to verify financial information. However, annual reports comprise substantial non-financial information, usually referred to as narrative information. In general, financial report users prefer to have more non-financial information validated by a third party to ensure the accuracy and verifiability of that information. Supporting this argument, Coram, Monroe, & Woodliff (2009) revealed that the company's stock price is affected by the information on non-financial performance indicators. They find that non-financial information has a significant effect on stock price estimates. Hence, third-party assurance reports, such as sustainability assurance reports and corporate governance assurance reports, provide verifiability of narrative information to users.

On the other hand, Lee & Lee (2013) and Robu & Robu (2015) observed that the common presumption of users is that financial statements audited by the larger auditing firm (Big 4 audit firms: EY, PwC, KPMG, Deloitte) provide a more accurate picture of a business. Also, studies revealed that audit quality is significantly positively correlated with the names of Big 4 audit firms. For example, Francis & Yu (2009) noted that Big 4 auditors provided higher quality audits and clients in larger firms evidenced less aggressive earnings management behaviour. Robu & Robu (2015) found that investors assess the quality of the auditing in terms of image, reputation, and size of the audit firm. They noticed that the quality of the audit services of the Big 4 auditors improves investors' trust of financial statements regardless of the audit opinion. Rusmin & Evans (2017) identify that the Big 4 auditors perform audits significantly faster than their non-Big 4 firms in Indonesia. These studies evidenced the 'Big 4, non-Big 4' matter is of importance in assessing the level of verifiability.

The following sub-information items are used to measure verifiability with respect to the audit report and other third-party assurance reports.

Sub-information items:

- AuR7.1: A financial statement with unmodified audit opinion compared to a modified audit opinion (Beest et al., 2009; Christensen et al., 2014; Duréndez Gómez-Guillamón, 2003; Maines & Wahlen, 2006)
- AuR7.2: Providing independent third party assurance for narrative reports (Coram et al., 2009)
- AuR7.3: Annual reports which have been audited by the global audit firms (Big-4 audit firms) (Robu & Robu, 2015; Rusmin & Evans, 2017; further reading: Ahmed, 1993; Francis & Yu, 2009)

3.7 Timeliness

The timeliness of financial reporting has received considerable attention from monitoring and professional bodies. According to the IASB Conceptual Framework, "timeliness means having information available to decision-makers in time to be capable of influencing their decisions, and in general, it considers that the older the information, the less useful" (IASB, 2018, p. 18). However, the Conceptual Framework accepts that this does not mean older information has no value; instead, older information helps users to make comparisons and assess trends of information (IASB, 2018, p. 18). Scholars, for example, Gregory & Van Horn (1963, p. 576) explain timeliness as the quality of 'being available at a suitable time' or 'being well-timed'. The key problematic variable in timeliness is the delay in the release of annual reports. Naser et al. (2003) stated that information is irrelevant and could lead to incorrect decisions due to its unavailability for decision-making before losing its capacity to influence their decisions. Joshi (2005) states that FRQ and the image of entities which reflects managerial efficiency and effectiveness depend on frequent and timely disclosures.

Timeliness of information helps users in making their decisions such as investing and lending. Owusu-Ansah (2000) supports that timely reporting contributes to i) efficient stock markets in that pricing functions can reflect available information, and ii) to mitigate insider trading, particularly so to impede the effects of spreading rumours to the market. Regarding lenders, Leventis, Dasilas, & Owusu-Ansah (2014) discuss that the use of timely information helps in the assessment of credit ratings. Highlighting the importance of timeliness, a study conducted by Naser et al. (2003) examines user perceptions of Kuwaiti's corporate reporting and reveals that all stakeholders rank timeliness as the second most important characteristic after the creditability of information. Table 3-6 gives a preview on the information dimension

and the sub-information items the former will be measured by which choice I will justify in the next two sections.

Table 3-6 – Main information dimension and sub-information items – Timeliness

Category name	Main information dimensions		Sub-information items
Timely publishing of annual reports	Annual reports finalised and published within a shorter period (within three months after financial year-end)	TimliIn17.1	Annual reports audited and finalised before three months to the year-end
		TimliIn17.2	Annual reports published within three months to the year-end

3.7.1 Time lag caused by Auditor's signature date

Obtaining the audit report after the financial year-end usually delays the timeliness of financial reporting (Ashton, Willingham, & Elliott, 1987). As an arguably negative consequence, users will then seek and find alternative, less reliable sources of information to make their decisions (Knechel & Payne, 2001). Studies used the time lag between the financial year-end and the auditor's signature date as a proxy for measuring the timeliness of the information. For example, Whittred & Zimmer (1984) supported that time lag from year-end to the auditor's approval date is a good proxy for measuring the timeliness of financial reporting and companies entering financial distress experience longer auditor's signature lags. Beest et al. (2009) and Braam & Beest (2013) used the number of days elapse for the auditor to sign the auditors' report after the accounting year-end as a measure of timeliness. Adebayo & Adebiyi (2016) investigated the timeliness of financial statements among the banks in Nigeria using time lag to auditor's signature dates. They revealed that bank size, profitability, and audit firm size significantly affect the timeliness of financial statements. Rusmin & Evans (2017) identified that firms with a large number of subsidiaries and poorer financial performance report longer reporting delays in Indonesia. Owusu-Ansah (2000) studied the timeliness of financial reporting practices of listed companies in Zimbabwe using time lag after the financial year-end

to auditors' report date and indicated that about 98% of the sampled companies reported within the specified regulatory period of 160 days after a year-end. The study also found that initial earnings announcement date, audit report date and the financial statements release date are correlated significantly with each other, but they are not identical.

However, the annual report submission period depends on the legal provisions in a country or the requirements of regulatory agencies. For example, companies are required to submit their annual reports with the New Zealand Exchange within three months of the end of the full financial year. Rusmin & Evans (2017) discloses that the Indonesian listed companies are required to submit their annual audited financial statements within 90 days from the year-end. In Sri Lanka, the Securities and Exchange Commission requires listed entities to submit financial statements quarterly within 45 days for each of the first three quarters and the final quarter within 60 days after the year-end.[19]

Hence, the above discussion provides evidence that the date by which audit reports become available to firms influences directly the timeliness of financial statements. Audit time-lag is thus assessed using the following sub-information item which focuses on the aspect for my FRQ index that measures whether firms engage in swift processes that allow timely release audited financial statements (cf. Section 3.7.2):

Sub-information item:

- TimliIn17.1: Annual reports are audited and finalised in an appropriate time period. [The gap between the auditor's signature date and the accounting year-end; I use a three-month

[19] In the initial study of annual reports, I noticed that all 12 companies I examined, completed their audit before three months to the year end.

cut-off which corresponds to users' expectation] (e.g., Coy & Dixon, 2004) about timely disclosure after financial year-end. (Adebayo & Adebiyi, 2016; Owusu-Ansah, 2000)

3.7.2 The time lag of availability of the report

Establishing the confidence of investors and lenders requires reliable and timely accounting information. In a practical sense, the information is officially passed to users when the financial statements are finalised and provided to users. Hence, even if financial statements are audited in a shorter period unless they are published, they are not information that can be used. Abdulla (1996) highlighted the importance of timeliness and suggested that a shorter time gap between the financial year-end and publication date is beneficial for users. Gregory & Van Horn (1963) and Coy & Dixon (2004) emphasize that publishing delay of financial information as a violation of timeliness. They defined delay as time takes by a company after its financial year-end to release its financial information to the public.

On the other hand, it is important to note that the financial reporting behaviour is largely driven by the regulatory deadlines of respective countries which impose a statutory time frame to file annual returns. Clatworthy & Peel (2016) support that users expect companies to report accounting information more quickly, particularly when they are beyond the statutory deadline. According to Section 144 of the Companies Act in Sri Lanka, an AGM should be called by a company not later than six months after the balance sheet date and not later than fifteen months after the previous AGM. Also, the Companies Act requires companies to submit returns within 28 days of their annual general meeting to the Registrar of Companies' office in Colombo.[20]

[20] In the initial pilot study of annual reports, I noticed that all twelve companies I examined hold their AGM before three months to the year end.

Therefore, the time gap between the financial year-end and the date the reports are publicly available is a suitable proxy to measure timeliness. This t is expressed in the following sub-information item which measures the QC 'timeliness', with a particular focus on the user-usefulness component of the FRQ index:

Sub-information item:

- TimliIn17.2: What is the period of time the annual reports are available after the financial year-end? (Are annual reports published within or after three months (Coy & Dixon, 2004) after the financial year-end) (Abdulla, 1996; Clatworthy & Peel, 2016; further reading: Naser et al., 2003; Scott & Smith, 1992)

3.8 Summary

In this chapter, the literature relating to the decision usefulness of information to investors and lenders were examined to identify information dimensions and related sub-information items that can be used to assess QCs as measures of FRQ. In my literature search, previous studies which assessed the quality of reporting using individual QCs, user need studies conducted by scholars, as well as user need surveys conducted by professional organizations were focused. In extracting information dimensions and sub-information items from the literature, two main concerns were focused: i) whether the information items assist in measuring the respective QC and ii) whether the selected items are useful in making investment and lending decisions.

Accordingly, 17 main information dimensions were identified and justified together with 54 sub-information items that help to assess the main information dimensions under 6 QCs as measures of FRQ. Relevance and faithful representation as fundamental QCs are assessed with nine main information dimensions and 29 sub-information items. Twenty-five

sub-information items, under eight main information dimensions, were identified to assess enhancing QCs such as comparability, understandability, verifiability and timeliness.

The second step (cf. Section 1.4) in my thesis process is to obtain feedback on the usefulness of assessment criteria from investors and lenders. Thus, the next step is to design a survey which contains all identified information dimensions and their related sub-information items. This includes a suitable formulation of questions that express and reflect the implied meaning in the various measures that contribute to the holistic FRQ index. Details of the process are discussed in Chapter 7.

To provide literature support for the survey, and to understand the investors and lenders behavioural background in financial reporting to develop the FRQ measurement index, the next chapter discusses the literature about the use of annual reports, perceptions of QCs, and perceptions of IFRS' impact on FRQ by users.

Chapter 4

The literature on usefulness, the importance of QCs and IFRS impact

4.1 Introduction

Financial reporting is a system of communication between a corporate entity and its stakeholders (Hasan, Abdullah, & Hossain, 2014). Scholars (e.g., Al-Ajmi, 2009; De Zoysa & Rudkin, 2010; Naser et al., 2003) note that users use financial reports as one of the primary sources of information to make decisions. However, arguments have been raised over the history of financial reporting about the usefulness of financial reports to users. Scott & Smith (1992) criticise company annual reports as being too promotional and biased. McCartney (2004) highlights a potential loss in the relevance of financial information due to the increasing number of information sources available to users. Thus, the usefulness is defined independently of and without reference to users' individual preferences or decision models, or to their actual use of information. Within a larger historical context, the decision-usefulness is a long-debated discussion which may be reflected in the dynamic nature of the development of Conceptual Frameworks over the history (detailed discussion is provided in Chapter 6).

Though the IASB's (2010, 2018) Conceptual Frameworks recognise investors and lenders as the main user groups of financial reports, prior studies (e.g., Barth et al., 2008; Cascino et al., 2014; Ehalaiye et al., 2018; Kothari, Ramanna, & Skinner, 2010) also recognised that investors and lenders might require different information and use it in different ways, while the information needs of these two groups can be significantly different when analysed individually (e.g., Epstein, 1975; Chenhall & Juchau, 1977), comparatively (e.g., Benjamin & Stanga, 1977) and jointly (e.g., Naser et al., 2003; Alattar & Al-Khater, 2008; Chatterjee, Mirshekary, Al Farooque, & Safari, 2010; De Zoysa & Rudkin, 2010). If the needs of these

stakeholder groups are noticeably different, it will be a challenge to satisfy their needs by one set of information (Scott & Smith, 1992), and information providers may wish to develop different information sets for important user groups. If the information needs of user groups are highly similar, then the idea of providing general-purpose information is logically sound. Therefore, achieving the IASB's objective of general-purpose financial reporting faces a few challenges.

One of the challenges lies within the term 'useful' and user perceptions on the use of annual reports. This has become an empirical subject matter of many studies conducted in numerous countries in the past few decades (De Zoysa & Rudkin, 2010). Arguments have been raised by researchers over the history of financial reporting on the continuing usefulness of financial reports to users (McCartney, 2004; Scott & Smith, 1992; Williams & Ravenscroft, 2015). Therefore, in Section 4.2, I discuss what investors and lenders have said on the usefulness of the information provided by entities as discussed in the literature. Closely related to 'usefulness', I also review associated aspects such as frequency of using annual reports, factors that hinder the use of annual reports, and the importance, usefulness and adequacy of annual reports for investment and lending decisions. This review will inform RQ2.

Another challenge for the IASB is to assess the term 'useful' in its objective of financial reporting and in relation to QCs (cf. Section 1.2). McDaniel et al. (2002) and Jonas & Blanchet (2000) also state that the usefulness of annual reports could be assessed in terms of the QCs. This argument has been further supported by previous studies (e.g., Achim & Chiş, 2014; Agienohuwa & Ilaboya, 2018; Beest et al., 2009; Braam & Beest, 2013; Mbobo & Ekpo, 2016). However, little research has focused on the perceived importance of QCs from an investment

and a lending decision perspective separately. Section 4.3 discusses the literature relating to the importance of QCs which will also inform RQ2.

The third challenge is to assess the extent the IASB's goals can be achieved. IASB, in its mission statement, stated that the purpose of IFRS is to improve the quality of reporting because quality information is the lifeblood of capital markets.[21] Based on the 'quality' discussion in Section 1.2, I discuss in Section 4.4, the literature related to the perceived impact of IFRS on improving the QCs and quality of financial reporting. This will also inform RQ2.

4.2 Use and usefulness of annual reports

Studies on the use of annual reports can be classified into three main groups. Some studies were conducted to examine the usefulness of annual reports for lenders only or investors only (cf. Section 4.2.1). Some researchers examined the usefulness of annual reports by mixing various types of users such as investors, accountants, tax officers, auditors, lenders and company executives (cf. Section 4.2.2). Another body of literature is comparative studies which analyse two or more user groups (cf. Section 4.2.3).

4.2.1 Studies on lenders only or investors only

Lender (investor) only studies consider different job roles within the particular user group. Note that the number of 'lender' studies is small compared to the number of 'investor' studies. For example, Stanga & Tiller (1983) conducted a study questioning 154 bank loan officers in the USA. They state that the informational needs of bank loan officers do not vary significantly between large public companies and small private companies. Bean & Irvine (2015) used semi-

[21] See https://www.ifrs.org/about-us/who-we-are/

structured interviews with 16 Australian risk analysts from 4 largest banks to study the decision usefulness of disclosures for derivative financial instruments to capital market participants. The study revealed the usefulness is limited because of i) the disclosures' failure to show companies' real use of derivatives and ii) the incapability of users to understand off-balance sheet risks of companies.

In terms of investor and investment decision studies, as early contributions, Epstein (1975) surveyed 1766 US shareholders and found that only 15% trusted the annual report as the primary source for investment decisions, whereas 49% depended on the advice of stockbrokers. Chenhall & Juchau (1977) used 100 selected investors in Australia. They identify that financial statements are the major element of annual reports and the most useful sources for share investment decisions. Scott & Smith (1992) conducted a study using American investors. They revealed that investors believe that corporate annual reports are generally correct and complete, but they are biased and used as a promotional tool. Further, they disclosed that newspapers, trade journals, other financial reports, advisory services and direct contact with company officials are important sources of information for investment decisions. Also, respondents claimed that the annual reports are in some respects unhelpful if investors do not fully understand financial statement analysis. Joshi & Abdulla (1994) examined the use of 59 information items for investors. They identified that sophisticated and non-sophisticated investors display significantly different preferences for 37 information items. Bence, Hapeshi, & Hussey (1995) conducted structured interviews with stockbrokers and institutional investors in the UK. They concluded that investment analysts tend to use short-term information that is regularly received, whereas institutional investors look for information of long-term nature. Bartlett & Chandler (1997) studied the use of annual reports surveying 76 UK private

shareholders and found that annual reports are widely read and there is an increase of information in the narrative section of the annual reports from the 1970s to 1990s.

An investigation into individual investors' perceptions about the factors that affect buying, holding and selling of stock on the Bahrain stock exchange was conducted by Al-Ajmi (2009) using a mail survey with 340 respondents, followed by 26 interviews. The study revealed that individual investors perceive corporate financial statements as an essential source of information for their investment decisions. They concluded that there is no significant difference in the responses from large and small investors, except on the relative importance of the cash-flow statement and the income statement. Hjelstrom et al. (2014), conducted 40 in-depth interviews of corporate investors from Sweden, the UK, and the USA about their use of specific financial reports. They found that information usage from annual reports depends on the purpose of use and accessibility to resources. They further discovered that in general, users looked at the first summary page(s) of the interim report or the notes to the financial statements and did not refer to detailed information in the financial statements, except the cash flow statements. As a recent study in a South Asian country, Biswas & Bala (2016) conducted a study in Bangladesh to examine individual investors' use of corporate annual reports and their perceptions of annual reports using 316 responses. The study revealed that i) over one-third of the investors regularly read annual reports, ii) the income statement, balance sheet and cash flow statement are the most read and important sections for them, and iii) the corporate environmental report and information on operations are the least read and the least important sections in an annual report. According to the study, reasons that restrict the readership (readability) of annual reports are lack of time, lack of usefulness and lack of interest.

4.2.2 Studies on mixed user groups

In mixed user group studies, users were identified based on their profession or job title and put into one survey group without referring to the specific decision role. For example, Naser et al. (2003) examined the usefulness of the annual reports to investors, government officials, financial analysts, academics, auditors, loan officers and stockbrokers in Kuwait. They found that all user groups depend mainly on the directly available information sources provided by the company such as annual reports, interim reports, and direct contacts with the company, and do not rely upon intermediary sources of information such as market rumours and newspapers. Supporting these study findings, Al-Razeen & Karbhari (2004) examined the perceptions of Saudi Arabian investors and creditors, who ranked the corporate annual report as the most important source of information. Mirshekary & Saudagaran (2005) surveyed seven different user groups in Iran and examined their perceptions of corporate financial statements. The results were that annual reports are regularly used as a basis for making investments and all users depend on the information obtained from the published annual reports more than on advice from stockbrokers, tips or rumours. Users ranked the income statement, the auditors' report, and the balance sheet as the three most important sections of an annual report. The respondents also revealed that a delay in publishing annual reports, lack of reliability of the information, and lack of adequate disclosure as factors that restrict the use of annual reports.

Alattar & Al-Khater (2008) explored views on corporate annual reports in Qatar using a questionnaire on individual investors, institutional investors, financial analysts, bank credit officers and government officers who involved with investment decisions. They found that i) the respondents considered annual reports as important, useful and the primary source of information for investment decisions and ii) the balance sheet, auditor's report, cash flow statement, income statement and notes to financial statements were the most important and

understandable sections of annual reports. Abdelkarim, Shahin, & Arqawi (2009) surveyed the perceptions of different user groups such as individual and institutional investors, analysts, academics, and intermediaries regarding the availability, adequacy and usefulness of the information disclosed in the financial reports of entities listed on the Palestine Securities Exchange. They analysed all users in to one survey group and revealed that users perceive reported information as neither adequate nor relevant to investment decisions due to credibility issues and bad timeliness of the disclosures.

De Zoysa & Rudkin (2010) is the only study conducted in Sri Lanka, according to my knowledge. This study collected the data in the year 2000 and examined the views on the usefulness of corporate annual reports of a wide spectrum of users, including accountants, managers, bankers, the assessors, academics, financial analysts and investors in one survey group. The study obtained 264 responses and revealed that a majority of users viewed annual reports as the most important source of company information. On the other hand, long delays in publishing annual reports and a lack of availability of these reports to the general public were considered as factors that restricted the use of annual reports.

Abu-Nassar & Rutherford (1996) surveyed a combination of Jordanian loan officers, academics, stockbrokers and individual shareholders. However, compared to other studies that I discussed above, they identified different decision roles of user groups such as individual investors – investment decision, academics – teaching and research purpose, stockbrokers providing advice and loan officers – granting and monitoring loans. They found bank loan officers were the users who most often read annual reports, followed by shareholders for investment decisions. They also found that the income statement and balance sheet were the most extensively read parts of the annual reports by all user groups.

Generally, with respect to the mixed user group studies, some of the findings must be considered carefully. Different users have different purposes as to why and how they use annual reports and will answer surveys in relation to unrevealed (to the researcher) decision-making scenarios. The findings from the surveys are to be treated as some overall mean response.

4.2.3 Comparative studies

The literature on comparative studies is small. Stainbank & Peebles (2006) surveyed users (managers of equity unit trusts to represent investors) and preparers (financial managers in companies) to examine the sources of financial information used for decisions regarding the buying, holding and selling of ordinary shares. In terms of the sources of information that respondents preferred, the study found that 'stockbroker advice' was preferred by the preparers and 'communicate with management directly' by users. Concerning respondents' perception of different types of information, preparers considered annual reports as the most useful source of information, whereas users preferred to the preliminary announcement made by companies. In reading annual reports, preparers give more priority to the income statement, while users rated the cash flow statement highly. A similar type of study was conducted by Dawd, Burton, Dunne & Almujamed (2018) in Kuwaiti-listed firms surveying preparers (financial managers) and users (financial analysts). Based on the 137 responses they received, preparers identified the auditor's reports as the most important section of the annual report to them while the Income statement and balance sheet were the most important for users.

Ehalaiye et al. (2018) is a recent study from a developed country (New Zealand) context. Their survey used responses from advisors, investors, lenders and regulators who operate within for-profit entities, and those with no public accountability (private entities). The results indicate that the latter group perceives financial statements as the most important

information source; on the other hand, public users opted for supplementary information to be most useful. The only study which was developed to account for investment and lending decision is Benjamin & Stanga (1977), to my knowledge. They studied the difference between members of Certified Financial Analysts (CFAs) as investment decision-makers and bank loan officers as lending decision-makers in Australia. Considering 79 information items included in the questionnaire, the study concluded that there is a significant difference between the perceived importance of information between CFAs and bank loan officers.

4.2.4 User need surveys conducted by professional bodies

In addition to the research studies conducted by scholars, professional organizations have also published contributions to the use of annual reports through different surveys. I have noticed that the academic literature has largely ignored this body of knowledge in the context of usefulness and user needs of annual reports. Importantly, the value of this body of professional literature is that the surveys were conducted in developed economies. Some of the recent surveys are discussed below.

PwC (2011) surveyed 22 investment professionals in the UK and found that investors considered the annual reports as a valuable source which provides information about firm performance, but did not use the annual report to base their valuation work on. The CFA (2015) annual survey of 290 UK investors on financial reporting and analysis reveals that investment professionals select annual reports as the most useful source of financial information, followed by databases (e.g., Bloomberg). However, 60% of respondents believed that financial reports contained too much irrelevant information. Fifty-five percent expressed the view that financial reports fail to present some important information for them, and 47% state that the disclosure relating to risks and uncertainties are the areas that should be enhanced. However, overall,

respondents agree that the FRQ has improved over the last ten years (from 2005 to 2015), i.e., in the period of IFRS adoption in many countries in Europe. An online survey conducted by PwC (2017) obtained feedback from 354 US investors on corporate reporting and identified that the quality of reporting is a key concern to their investment analyses and that they preferred quarterly reporting. The FRC (2017) reviewed 203 annual and interim reports and accounts in 2016/17 and revealed that, though the investors rely on disclosures of the key judgements and estimates management make when preparing their financial statement, the quality of reporting is not always as high as it could be. CPA (2018) produced a survey report on the decision usefulness of financial reports in Australia by examining the statistical relationship between accounting information and share prices from 1992 to 2015, followed by 17 interviews. The study concluded that, though the financial statements do not provide sufficient information for predicting future performance, they are the foundation for investor decision-making. Also, the study revealed that financial statements had maintained their decision usefulness for large and medium-sized entities in Australian stock exchange listed companies and that decision usefulness of financial reporting has improved in the post-IFRS period.

In summing up, the above literature draws my attention to three main concerns. Firstly, I reviewed studies to examine the use and usefulness of annual reports as a source of information, the importance of different sections in annual reports, and the factors that affect to use of annual reports. However, the studies that produced different results were conducted in different country contexts, and most of them neither differentiate between the job role of user groups nor account for different decision roles. Thus, in the context of decision usefulness, the findings are unclear because the responses are made with respect to decision scenarios which the researchers will not know about. Since the identification of decision role is

important, my study focuses on decision scenarios of investment and lending as discussed by the IASB's Conceptual Framework.

Secondly, the terms 'use', 'usefulness' and 'useful' are frequently referred to interchangeably in the financial reporting and decision usefulness literature. The Oxford English Dictionary defines the term 'use' as 'take, hold, or deploy (something) as a means of accomplishing or achieving something; employ'. The term usefulness is defined as 'the quality or fact of being useful' and useful means 'able to be used for a practical purpose or in several ways'. The IASB Conceptual Framework defines 'useful' indirectly, stating that 'useful' information must be relevant and faithfully represent. In my study, I understand that 'use' refers to how often (frequently) users refer to annual reports to make their decisions, and 'usefulness' is used in the context of 'able to be used for decision-making scenarios on investment and lending'.

Thirdly, I noted that though the information in annual reports is useful, users prefer other sources of information such as stock market publications or direct communication from management. This shows that, although the information is *useful*, it is not *sufficient* to make their decisions. Therefore, in my study, I differentiate between the 'use' and 'useful' from the viewpoint of the 'adequacy' of information, i.e., whether the useful information is sufficient for decision-making scenarios of investment and lending.

Based on my reviews in Section 4.2, a list of items has emerged that I deem relevant in order to answer RQ2 which focus on studying how the information is being used for investment and lending decision-making scenarios which are considered in developing an FRQ measurement index. Thus, I have formulated the following sub-research questions (SRQ).

SRQ2.1 How often are annual reports used for investment decisions and lending decisions?

SRQ2.2 Is there a statistically significant difference between investors and lenders in how important they perceive various sources of information to be for their decision-making?

SRQ2.3 Is there a statistically significant difference between investors and lenders in how they perceive the usefulness of the information in annual reports to be for their decision-making?

SRQ2.4 Is there a statistically significant difference between investors and lenders in how they perceive the adequacy of information in annual reports to be for their decision-making?

SRQ2.5 Is there a statistically significant difference between investors and lenders in how they perceive the usefulness of various sections in annual reports to be for their decision-making?

SRQ2.6 Is there a statistically significant difference between investors and lenders in how they perceive the factors that restrict the use of annual reports?

These questions are included in the survey (cf. Appendix 1, Section–B of the survey questionnaire) and answers for those questions are discussed in Chapter 7.

4.3 Importance of QCs

As discussed in Chapter 2, QCs are the key features of financial information that make information useful to users. Some studies focused on examining the perceived importance of QCs for decision-makers. For examples, Abu-Nassar & Rutherford (1996) found that bank loan officers revealed a low degree of users' satisfaction with QCs of corporate reports in Jordan.

Naser et al. (2003) identified that Kuwaiti user groups relied on credibility and timeliness as the most important characteristics of useful corporate information. Tasios & Bekiaris (2012) also investigated auditor's perceptions on QCs and indicated that the most important QC is faithful representation and the least important is timeliness.

In contrast, Abdelkarim, Shahin, & Arqawi (2009) show that Palestinian users, such as individual and institutional investors, analysts, academics, and intermediaries, consider timeliness as the most important QC. In a similar study conducted by Stainbank & Peebles (2006) in South Africa, preparers and users of annual reports disclose that users identify comparability as the most important QC while preparers identify faithful representation (they call it 'fair presentation') as the most important QC. Under the Conceptual Framework of the Corporate Report of the Accounting Standards Steering Committee of ICAEW (ICAEW, 1975), Smith (1996) discusses the trade-off between QCs and reveals that both MBA students and accounting practitioners prefer to sacrifice completeness, comparability, timeliness and understandability in disclosures in return for reliability, objectivity and relevance. The study further highlights that MBA students indicate that understandability is the most important QC, while accounting practitioners consider timeliness to be the most important QC. Ho & Wong (2001) examine the perception of the importance of QCs from the CFOs in listed entities and financial analysts in stock brokering firms in Hong Kong. They identify that CFOs considered readability as most important QCs, whereas analysts opted for ease in understanding information in corporate annual reports. Similar results were noted in the comparative study between users and preparers of financial statements conducted by Dawd et al. (2018) in Kuwait. They reveal that reliability is the most important QC for users, whereas undestandabiliy is for preparers.

Overall, the above studies show an inconclusive result about the order of importance of QCs for users in different decisions scenarios. Importantly, none of the studies reviewed has focused on an examination of the importance of QCs in the context of investment and lending decisions. As a consequence, we do not know anything about what the importance ranking of QCs may be for the different decision scenarios of users. The development of my FRQ measurement index based on QCs and the associated analysis of the contributions of each of the QCs towards FRQ requires to an examination of investors' and lenders' perceptions about the importance of QCs in their respective investment and lending decision-making.

Hence, I seek to answer the following sub-question with respect to RQ2 (cf. Section 1.1 and Appendix 1, Section–C of the survey questionnaire).

SRQ2.7 How important are the QCs for investment (or lending) decisions?

4.4 Impact of IFRS

The number of countries which have adopted IFRS has grown since 2001 (Lourenço et al., 2015) and currently more than 49,000 companies listed in 93 stock exchanges in the world use IFRS.[22] Widespread adoption of IFRS by many countries conveys numerous benefits (De George, Li, & Shivakumar, 2016). First, the adoption of IFRS by many countries has been motivated by the aim of establishing one set of high-quality financial reporting standards to increase FRQ. For example, Cheung et al. (2010) state that Australia, as an early adopter of IFRS, did so with the expectation of improving FRQ. Secondly, scholars (Ball, 2006; Barth et al., 2008; De George et al., 2016; Jermakowicz & Gornik-Tomaszewski, 2006; Lambert, Leuz, & Verrecchia, 2007) suggest that improved transparency and disclosure help to reduce

[22] See http://www.ifrs.org/use-around-the-world/use-of-ifrs-standards-by-jurisdiction/#analysis

uncertainty, agency costs, information asymmetry, cost of capital, and estimate risk. Thirdly, improved transparency enhances reporting quality, credibility, comparability, accuracy, and capital market efficiency are perceived advantages of IFRS. However, scholars (e.g., Ball et al., 2003; Lourenço et al., 2015; Păşcan, 2015) argue that it depends on several other factors such as a country's legal and political system, financial reporting incentives, financial market development, tax system, capital structures, and ownership structures of firms.

On the other hand, the literature indicates many challenges, such as the costs of implementation, awareness, education, staffing, training and information technology infrastructure associated with the adoption and implementation of IFRS (Jermakowicz & Gornik-Tomaszewski, 2006; Poudel et al., 2014; Sharma, Joshi, & Kansal, 2017; Weaver & Woods, 2015). Such challenges have also drawn interest from stakeholders such as report preparers, accounting practitioners, professional accounting bodies, report users and accounting researchers in studies on IFRS (Joshi, Yapa, et al., 2016).

4.4.1 The literature on IFRS adoption and reporting quality

Levitt (1998) discusses the role of accounting standards and their importance to financial statement quality and as guidelines for producing quality financial data. The IASB creates the standards and the Conceptual Framework in an attempt to create higher quality financial statements. A common notion among researchers is that the quality of IFRS is in general higher than national accounting standards and the move from local accounting standards to IFRS would improve the FRQ (e.g., Barth et al., 2008; Chen et al., 2010; Leuz, Nanda, & Wysocki, 2003). A good financial reporting assessment and disclosure system can better present the company's financial situation and economic performance, thus improving reporting quality

(Daske et al., 2008; Leuz et al., 2003). Hence, it is evident that IFRS can be accepted as an important tool which affects FRQ.

Scholars such as Daske et al. (2008), Jeanjean & Stolowy (2008) and Jermakowicz (2004) support the view that a change from local accounting standards to IFRS will influence reporting quality. Studies (e.g., Barth et al., 2008; Chen et al., 2010; Ahmed, Neel, & Wang, 2013; Yurisandi & Puspitasari, 2015) provide empirical evidence that the FRQ has improved under IFRS compared to national accounting standards. However, Ball et al. (2003) and Elbannan (2011) argue that IFRS does not improve FRQ, while some scholars, for example, Jeanjean & Stolowy (2008), found mixed results on the impact of IFRS to reporting quality.

The developed versus developing economies dichotomy is frequently used in the IFRS literature (e.g., Ball, 2006; Pricope, 2016). The developed economies group includes jurisdictions with advanced technological infrastructure. In contrast, the developing economies group comprises countries with low standards of living, an underdeveloped industrial base and low levels of economic development (Pricope, 2016). Lee (1987) and Wallace (1990) consider that the development of accounting infrastructure is important for efficient capital markets, which in turn are substantial for the economic development of a country. However, some scholars (e.g., Carmona & Trombetta, 2008; Irvine & Lucas, 2006) argue that fully adopting IFRS in some underdeveloped economies may not be appropriate due to the lack of economic resources and insufficient infrastructure to enforce the application of IFRS.

Using earnings management and timely loss recognition approach, Chen et al. (2010) examined financial reports of public companies in 15 EU countries in the period from 2000 to 2007 and compared financial statements before and after the adoption of IFRS. They identified

a general increase in FRQ after the implementation of IFRS. Barth et al. (2008) examine whether the application of IAS is associated with higher accounting quality in 21 European countries using earnings management, timely loss recognition, and value relevance and reveal that applying IAS improves the accounting quality between the pre and post-adoption periods. Employing income smoothing, earnings benchmark targeting, accruals aggressiveness, and timely loss recognition, Ahmed et al. (2013) conducted research using 20 countries that adopted IFRS in 2005 compared to 15 countries that had not adopted IFRS. Their study reveals that the companies from the countries that adopted IFRS have increased income smoothing and more aggressive reporting of accruals, while there was a decrease in the timeliness of loss recognition compared to the companies that had not adopted IFRS.

According to the above discussion of literature, it is evident that, in general, IFRS appear to increase the FRQ. However, the findings are not consistent across the world and studies evidence that these benefits will be different in the context in developing countries. The same pattern can be observed when derived measures of reporting quality are used. For example, a study conducted by Kargin (2013) of Turkish firms reveals that the value relevance of accounting information has improved during the post-IFRS period (2005-2011). Adibah Wan Ismail et al. (2013) examine the effect of IFRS adoption in Malaysia and found that the value relevance of earnings increased while the value relevance of book value decreased following the adoption of IFRS. Elbannan (2011) also examines the impact of IFRS adoption on earnings quality and reveals that there is no significant decrease in earnings management for the post-adoption period in Egypt.

Some scholars point out that IFRS is a complex set of standards, and adoption is a troublesome process for less developed economies (Jermakowicz & Gornik-Tomaszewski,

2006; Larson & Street, 2004). Moreover, Jermakowicz & Gornik-Tomaszewski (2006) identify major barriers to converge with IFRS such as a lack of guidance to implement IFRS, differences in the interpretation, lack of education, lack of training, and lack of IFRS knowledge. Samaha & Khlif (2016) emphasise that the degree of compliance to IFRS in developing economies produces mixed results and studies on consequences of IFRS adoption are still limited. According to IFRS Foundation statistics, by 2017, 33 Asia and Oceania countries had adopted IFRS out of which 24 countries required IFRS standards for domestic publicly accountable entities. Most of those countries had adopted IFRS in the recent past. In South Asia, Bangladesh and Pakistan adopted IFRS as the initial movers and Sri Lanka adopted IFRS in 2012. Some studies (e.g., Sharma et al., 2017; Poudel et al. 2014) focus on examining the implementation challenges, benefits of IFRS, and reasons for adopting IFRS. However, none of the studies focused on determining whether IFRS achieved its stated objective of improving the quality of reporting in Asian countries. For example, the study conducted by Sharma et al. (2017) examined the perceptions of accounting practitioners and users about the IFRS pre-implementation stage challenges. They argued that, under institutional pressures from the World Bank, the IASB and the Asian Development Bank, India conveyed its decision to implement IFRS from the beginning of April 2016, despite initial reluctance to adopt IFRS. Further, they noted awareness and preparedness challenges of IFRS implementation.

Poudel et al. (2014) analysed the accounting environment in Nepal by interviewing selected key stakeholders and found that the decision to adopt IFRS in Nepal was not driven by the needs of local organizations but was pressurised by donor organizations such as the Asian Development Bank, the International Monetary Fund, and the World Bank. This argument of donor organization pressure to adopt IFRS was supported by Uyar & Gungormuş (2013) in Turkey, stating that parties including the World Bank, capital markets, the 'Big 4'

international accounting firms and the IASB had influenced the adoption of IFRS. Similar findings were generated by a study conducted by Zaman & Rahaman (2005) to evaluate the decision to adopt IASs in Bangladesh, which found that institutional legitimisation is a major factor that motivates the decision to adopt IASs in Bangladesh.

The above picture completes what I have reported in Section 1.3 in relation to Sri Lanka. According to the above discussion, it is thus questionable whether IFRS provide the same level of benefits to developing economies as the academic evidence seems to suggest it has provided to developed economies. Note that on the topic of IFRS adoption, most of the studies use approaches which are different from QC-based approaches in assessing whether quality has improved due to IFRS. Therefore, it is worthwhile to study the implications from IFRS adoption, since the implementation of IFRS in under-developed capital market conducts such as Sri Lanka may bring unexpected results. Still, the ability of IFRS to improve FRQ in a developing economy is a currently debated topic among academics as well as practitioners. I thus form an additional sub-research question which will inform RQ2.

SRQ2.8 What is the perceived impact of IFRS adoption in Sri Lanka from the point of view of investors and lenders?

Furthermore, the following sub-research questions inform RQ3. They are of interest in the context of applying the constructed FRQ measurement index, and whether the FRQ of annual reports has increased after the adoption of IFRS.

SRQ3.1 What is the level of FRQ of Sri Lankan entities?

SRQ3.2 Has FRQ improved in Sri Lanka after adopting IFRS compared to the period before adoption?

SRQ3.3 Has FRQ improved over time in Sri Lanka?

4.5 Summary

This chapter focused on the literature which researches the use of annual reports by investors and lenders, the importance of QCs for them in making their investment and lending decision (RQ2) and the impact of IFRS on QCs and reporting quality (RQ2 and RQ3).

Many studies support that the annual report is an important source of information for users, and financial statements are the key section within annual reports. However, there is a lack of studies that examined the views of the users focusing on their decision roles. Therefore, the reliability of the findings that could be translated into specific decision-making scenarios is questionable because mixed user groups that include accountants, academics, investors and lenders responded to the surveys administered. Varying results were produced by the studies on the importance of QCs for different user groups in relation to FRQ. Moreover, the literature has not tested user perceptions of the importance of QCs as features of quality information concerning investment and lending decisions. In general, studies confirmed that IFRS improve the quality of reporting as proposed by the mission of IFRS. However, some studies produced varied results on the impact of IFRS on the reporting quality, which was measured in a variety of ways. Fewer studies focused on the perceived impact of IFRS on improving the QCs of financial reporting in terms of investment and lending decisions.

To address the sub-research questions SRQ2.1 to SRQ2.8 and SRQ3.1 to SRQ3.3, I have gathered data from Sri Lankan investment and lending decision-makers, as well as published annual reports of Sri Lankan, listed entities. Therefore, before I move to the main analysis chapters of my work, the last review chapter of this thesis focuses on the particular financial reporting context of Sri Lanka.

Chapter 5

The financial reporting context of Sri Lanka

5.1 Introduction

This chapter provides a background for understanding the characteristics of the financial reporting environment in Sri Lanka. The examination of the reporting environment helps to understand the evolution of reporting regulations including IFRS and its impact on FRQ in Sri Lanka, which is a developing country that suffered 26 years (1983-2009) of war that significantly affected the economy, society and commerce. The literature (e.g., An & Sharma, 2015; Joshi, Judy Beckman, Yapa, & Kraal, 2016; Poudel et al., 2014) suggests that several environmental factors, such as a country's particular colonial history, stage of economic development, and socio-economic factors such as legal, political, professional, cultural, language, and religious settings, affect financial reporting practices in a country. An & Sharma (2015) discuss how these environmental factors differ significantly from country to country, especially between developed and developing countries.

5.2 Sri Lankan socio-economic background

Sri Lanka is an island located in the Indian Ocean with a land area of 65,610 km². The country called Ceylon became a British colony in 1815, following periods of Portuguese and Dutch colonial rule. It gained the states of independence in 1948 and was retitled Sri Lanka on becoming a republic in 1972. In 1948, Sri Lanka's population was only seven million, but it increased at an annual average rate of 2.3% between 1963 and 1972. Later, the population growth rate has dropped substantially to 0.9% in 2019 (Central Bank of Sri Lanka, 2019). There are now about 22 million people living in Sri Lanka comprising 75% of Sinhalese, 11% of Tamils and 9% of Muslims (Central Bank of Sri Lanka, 2019).

According to statistics of the Central Bank of Sri Lanka, Sri Lanka recorded a GDP growth rate of 6% in the year 2000, and in 2009 when the civil war ended, it was 3.5%. It increased to 9.1% by 2012, the year Sri Lanka adopted IFRS, and drastically decreased to 4.4% by 2016 and 3.5% in 2019 (Central Bank of Sri Lanka, 2019). In the year 2000, the contribution of the Agricultural sector to GDP was 20%. Almost two decades later in 2018 this contribution to GDP to 7%. The service sector contribution was 53% in the year 2000 and 58% in 2019. According to the World Investment Report-2020, it is important to note that Foreign Direct Investment (FDI) was US$941M in 2012 and US$1,611M in 2018, but in 2019 it was a drastically decreased to US$756M (UNCTAD, 2020, p. 240).

The economy was affected by two significant events. The first event was the civil war that started in the early 1980s, costing thousands of civilians and billions of dollars of physical assets. There were about 80,000 war-related deaths between 1980 and 2008[23]. The total economic cost of the war was assessed at US$200 billion[24]. The second event was the tsunami disaster in December 2004 which brought the biggest natural disaster to the country in its documented history. More than 35,000 people died, 100,000 houses were damaged, and 500,000 people were displaced, causing damage of US$900M to infrastructure and environment of Sri Lanka (Ratnasooriya, Samarawickrama, & Imamura, 2007). Given the national financial losses, tax money will usually be directed primarily towards humanitarian and infrastructure development activities, especially in North development project[25] and to a lesser extent towards developing accounting reporting systems in the country.

[23] See https://www.hrw.org/world-report/2010/country-chapters/sri-lanka
[24] See http://www.asiaecon.org/special_articles/read_sp/12556
[25] According Central Bank of Sri Lanka, in Northern Province infrastructure development programs during 2009-2013 cost LKR 221 billion recorded a provincial GDP (PGDP) growth rate of 25.9% in 2012, higher than the national average of 16.2%. (See https://thediplomat.com/2019/11/sri-lankas-uneven-reconstruction/)

5.3 Financial reporting in Sri Lanka

As reported by Liyanarachchi (2009), the financial reporting history in Sri Lanka can be traced back to the ninth and tenth centuries. The historical evidence shows that Buddhist monasteries were prerequisite to retain accounting records and to read these records periodically in public (Liyanarachchi, 2009). He reported that rock inscriptions were relied upon to limit the misuse of monastic property and to increase openness and accountability.

Much later, the British colonial period (1815 – 1948) influenced and initiated Sri Lankan accounting practices (Narayan, Lakshman, & Reid, 2002). Locals who had the capacity to afford a British education obtained accounting qualifications from the Institute of Chartered Accountants in England & Wales and British-owned corporations in Sri Lanka provided job opportunities to British-qualified professionals who settled in the country (Wijewardena & Yapa, 1998). From the 1920s, the first (British) professional accountancy examinations were held in Colombo. Narayan et al. (2002) note that the Accounting Board was established in 1941 under the colonial government to recommend examinations conduct for selecting candidates for the government accounting service in Sri Lanka. The candidates selected by the Accounting Board obtained the status of 'Ceylon Registered Accountants' (Yapa, 2001). Narayan et al. (2002) state that the establishment of the Chartered Accountants of Ceylon in 1950 was the official commencement of the accountancy profession in Sri Lanka.

In 1959 an important milestone of Sri Lankan reporting environment was the establishment of the Institute of Chartered Accountants of Sri Lanka (ICASL) (referred to as CASL after 2011) which was officially established by the Parliament Act (No.23) 1959 and empowered to develop the accounting profession and reporting practices. Before 1970, until the Institute of Chartered Accountants of Sri Lanka (ICASL) issued the first Sri Lankan

Accounting Standard (SLAS), financial reporting requirements of Sri Lanka were mainly based upon the Companies' Ordinance of Ceylon, UK legislation and the recommendations of the ICAEW. Later, as another significant milestone, the Sri Lanka Accounting and Auditing Standards Act (No. 15) 1995 made provisions to establish the Sri Lanka Accounting and Auditing Standards Monitoring Board (SLAASMB). The SLAASMB operationalised the Accounting and Auditing Standard Act and was empowered to examine the compilation to SLAS of Specified Business Entities (SBEs)[26] in Sri Lanka. Moreover, the first committee under the Sri Lanka Accounting and Auditing Standards Act was established in 1996 as the Accounting Standards Committee (ASC) to recommend SLAS adoption in the country through ICASL. Within six months it reviewed the International Accounting Standards (IAS) framework and all IAS (up to IAS 27) and published a book of SLAS in 1996. Twenty-eight SLASs were effective as of 30 June 2001.

The "*Diagnostic Study of Accounting and Auditing in Sri Lanka*", published by the Asian Development Bank (ADB) in 2001, made one of its suggestion that SLASs were already slightly out-of-step with IASs. The report recommended closing the emerging gaps between SLASs and IASs (Narayan et al., 2002). Further, the ADB suggested that SLASs should be disseminated as overlap regulations rather than as amended IASs.

In 2004, the World Bank conducted a review of accounting and auditing practices in Sri Lanka and issued a Report on the Observance of Standards and Codes (ROSC), which

[26] According to Sri Lanka Accounting and Auditing Standards Act No. 15 of 1995 SBEs include: 1. Companies listed on a stock exchange. 2. Banks. 3. Insurance companies. 4. Factoring companies. 5. Finance companies. 6. Leasing companies. 7. Unit trusts. 8. Fund management companies. 9. Stockbrokers and stock dealers. 10. Stock exchanges. 11. Public corporations engaged in the sale of goods or the provision of services. 12. Non-listed companies that have; ─ annual turnover in excess of Rs500 million; ─ shareholders' equity in excess of Rs100 million; ─ gross assets in excess of Rs300 million; ─ liabilities to banks and other financial institutions in excess of Rs100 million; ─ staff in excess of 1,000 persons. See http://slaasmb.gov.lk/specified-business-enterprises/

evaluated the weaknesses and strengths of the accounting and auditing requirements and compared actual practices with the published reporting requirements (Rahman, 2004). This review recognized gaps between Sri Lanka accounting standards and the International Accounting Standards (Rahman, 2004). Rahman (2004, p.11) noted that "…a gap exists between Sri Lanka Accounting Standards and International Accounting Standards mainly for two reasons: non-adoption of certain International Accounting Standards; and the introduction of an alternative method that is not permitted by International Accounting Standards".

Studies (e.g., Boolaky & Soobaroyen, 2017; Poudel et al., 2014; Sharma et al., 2017) argued that institutions such as the World Bank and the IMF could pressure a country or an organisation to conform to international standards. Zaman & Rahaman (2005) also revealed that the rationale behind this institutional coercion is mainly financial dependence of the pressurised organisation. For example, the following paragraph extracted from Deloitte (2015) evidences the coercive isomorphism[27] in implementing IFRS in Sri Lanka.

> **"**The World Bank has published the 2014 'Report on the Observance of Standards and Codes' (ROSC) on accounting and auditing in Sri Lanka. The report follows a 2004 ROSC, which had recommended that Sri Lanka mandates the use of IAS/IFRS without modifications for specified business enterprises. The 2014 ROSC states that this key recommendation has been fully implemented by Sri Lanka."[28]

Thus, it is evident that the World Bank in 2004 promoted the adoption of the IFRS as a method to enhance the quality of financial reporting in Sri Lanka entities (Rahman, 2004). In

[27] DiMaggio & Powell (1983) discussed that institutional pressures occur from three sources of isomorphism, i.e., coercive, mimetic, and normative. Coercive isomorphism "results from formal and informal pressures exerted on organisations by other organisations upon which they are dependent and by cultural expectations in the society within which organizations function" (DiMaggio & Powell, 1983, p. 150).

[28] See https://www.iasplus.com/en/news/2015/08/sri-lanka

the same year, the SLAASMB decided to encouraged Sri Lankan listed companies to adopt IFRS voluntarily. In 2007, responding to the ADB and World Bank recommendations, CASL agreed to converge with IFRS with effect from 2012. The hope from the convergence was to get the benefits of "high quality, transparent and comparable information in financial statements and other financial reporting to help investors, other participants in the various capital markets of the world and other users of financial information"[29] to make economic decisions as stated by the IFRS foundation. Accordingly, in 2012 Sri Lanka fully adopted IFRS for SBEs. With the adoption, Sri Lanka applied the same numbering as per IFRSs and IASs. All the IFRSs were renamed as Sri Lanka Financial Reporting Standards (SLFRS), and all the IASs were renamed as Sri Lanka Accounting Standards (LKAS). Further, CASL adopted the International Financial Interpretation Committee (IFRIC) guidelines and Standards Interpretation Committees (SIC) guidelines which are necessary for the proper implementation of IFRSs and now are also a part of Sri Lanka's financial reporting framework.

5.4 Regulators of the financial reporting system in Sri Lanka

The financial reporting system is regulated mainly by CASL, SLAASMB, the Central Bank of Sri Lanka, the Securities and the Exchange Commission of Sri Lanka, and the Inland Revenue Department (IRD). The reporting environment is governed by many pieces of legislation passed by the parliament of Sri Lanka. Among them, the Sri Lanka Accounting and Auditing Standards Act (No. 15) 1995, the Companies Act (No. 07) 2007, the Finance Companies Act (No. 78) 1988, the Banking Act (No. 30) 1995, and the Inland Revenue Act (No 10) of 2006 play leading roles. Some of the primary regulators are discussed below.

[29]See https://www.iasplus.com/en/standards/other/preface

5.4.1 Institute of Chartered Accountants of Sri Lanka (Est 1959)

The primary responsibility of the CASL is to manage the accounting and auditing profession in Sri Lanka. Since its establishment, the CASL performances as an examining organization for certifying chartered accountant qualifications which have provided the opportunity for Sri Lankans to turn into qualified as chartered accountants. CASL members pay annual subscription fees and have to demonstrate Continuous Professional Development (CPD) to renew their annual practising certificate. Additionally, CASL is the only body issuing the certificate of practice to its members to carry out audits of SBEs (Yapa, Jalathge, & Siriwardhane, 2017). The 'Approved Employer Certificates' are issued to audit firms by CASL to operate as an audit firm in Sri Lanka. The four largest international accounting firms that operate in the country are KPMG, Ernst & Young, PwC and BDO partners. These firms audit, on average, 84% of the Sri Lankan listed companies (Yapa et al., 2017).

ICASL had 121 founding members at its establishment in 1959. In 1963, according to the Commission of Inquiry on Technical Education detected that there were 271 financial accountants and 15 cost accountants in Sri Lanka. ICASL familiarized new examination structures in 1976, and the membership increased swiftly to about 500 by 1980 (Yapa, 2001)**.** At present, CASL is the only accounting professional body in Sri Lanka with statutory powers and had in 2019 more than 5,000 members and a more than 40,000 student population. CASL holds the membership in the International Federation of Accountants (IFAC), the Confederation of Asian and Pacific Accountants (CAPA), the Asia-Oceania Tax Consultants' Association (AOTCA), the IASB, the International Auditing and Assurance Standards Board (IAASB), the Asian-Oceanian Standard-Setters Group (AOSSG), the South Asian Federation of Accountants (SAFA) and the Organization of Professional Associations (OPA). The Institute provides knowledge and guidance on ethical and technical standards to its members.

It warrants a high standard of professional proficiency among the membership holders. CASL influence on the formulation of national policy related to the accountancy profession in Sri Lanka and contributes substantially to the national development plans. It aims to provide leadership to the accounting profession in Sri Lanka.[30]

5.4.2 Sri Lanka Accounting and Auditing Standards Monitoring Board

The Sri Lanka Accounting and Auditing Standards Monitoring Board (SLAASMB) was established under the Sri Lanka Accounting and Auditing Standards Act, No. 15 of 1995. It monitors compliance with the Sri Lanka Accounting Standards and the Sri Lanka Auditing Standards in the preparation, presentation and audit of financial statements of SBEs[31].

SLAASMB reviews financial statements of SBEs annually to examine the compliance with Sri Lanka Accounting Standards and the Sri Lanka Auditing Standards. As at 31st December 2018, there were 1579 SBE's and SLAASMB reviewed 1566 financial statements out of which 68% of all annual reports were deemed fully compliant with IFRS, 31% compliant but with issues which then received an issued letter of comfort, and 1% was deemed not compliant (SLAASMB Annual Report, 2018).

5.4.3 Sri Lanka Accounting and Auditing Act No 15 of 1995

Sri Lanka Accounting Standards issued by the CASL made mandatory for all public companies by the enactment of the Sri Lanka Accounting and Auditing Act No 15 of 1995 which empowers the CASL to issue accounting and auditing standards. This Act also established the

[30] See www.casrilanka.com
[31] See http://slaasmb.gov.lk/

SLAASMB to oversee the application of accounting and auditing standards in the preparation, presentation, and audit of financial statements.

5.4.4 Inland Revenue Act No. 10 of 2006

The Inland Revenue Department (IRD) manage tax ruling on behalf of the government of Sri Lanka. It was empowered by the Inland Revenue Act No. 10 of 2006 which mandates all listed companies, partnerships and sole proprietorships which have a turnover of over LKR[32]250 million or a net profit of over LKR100 million for the year to file an annual tax return to the IRD with their audited financial statements (Inland Revenue Act, 2006). According to the Act, financial statements should be prepared and audited by a qualified accountant who is a member of CASL.

5.4.5 Companies Act No. 7 of 2007

The Companies Act No.7 of 2007 replaced the Companies Act of 1982 and implemented with effect from 3 May 2007. The Act covers the rules, procedures, and reporting requirements for registered companies. The company registrations, financial statements, and annual returns are managed by the Registrar of Companies[33]. Also, the Act prescribes the requirements to prepare company and group financial statements. Under this Act, financial statements of public companies are exposed to public inspection, but private company financial statements are not. A private company is mandatory to provide the financial statements of the company together with copies of auditor's report to the Registrar of Companies (Companies Act, 2007). The Act requires that an auditor must be a member of the CASL to carry out audits of SBEs.

[32] Sri Lankan Rupees
[33] See http://www.drc.gov.lk/intro/

5.5 Summary

The above overview of the financial reporting environment in Sri Lanka provides a picture of a multitude of Acts and professional organisations being established. Usually, systems of any form that go through rapid development, change and adjustment would optimally need monitoring as to their efficiency and effectiveness. Eight years after IFRS adoption in 2012, it is worth asking to what degree the intended goals set out by the IASB were achieved in Sri Lanka. In other words, being a developing economy and late adopter of IFRS, impacted by colonialism as well as institutional pressures to adopt IFRS, Sri Lanka makes for an interesting and useful study context as to whether it has achieved the perceived benefits from IFRS. I recall the reader that this is the subject of RQ3. The next chapter discusses the methodology adopted to achieve all three research objectives of the thesis.

Chapter 6

Theoretical framework and research methodologies

In this chapter, I discuss how the theoretical framework for my study embeds into two theories, decision usefulness theory (Section 6.1) and institutional theory (Section 6.2). In Section 6.3, I then outline the different methodological aspects of my research from an epistemological and ontological viewpoint.

6.1 Theoretical framework

The purpose of this section is to link relevant theory to my study and to understand the reasons for making quality reporting through annual reports by entities. A theoretical framework consists of "set of interrelated constructs, definitions, and propositions that present a systematic view of phenomena by specifying relations among variables, with the purpose of explaining natural phenomena" (Creswell, 2003, p. 64). In the context of financial reporting literature, several theories have been employed as guidance in explaining reporting practices. Scholars (e.g., Healy & Palepu, 2001; Verrecchia, 2001) have discussed that there is no single comprehensive theory that supports an understanding of reporting practices. Parum (2005) argued that there is no commonly accepted theoretical base or paradigm in corporate reporting. Gray, Kouhy, and Lavers (1995) support that there is an absence of agreed theoretical perspective to explain reporting activities. In the financial reporting literature, agency theory, institutional theory, stakeholder theory, and decision usefulness are the dominant theories. Solomon (2007) notes that although there are variances between the different theoretical frameworks, they put an effort to analyse the same problems but from diverse perspectives.

Lee (2015, p. 125) states that "The Conceptual Framework prescribes decision usefulness as the reporting objective, supported by relevance and faithful representation as qualitative characteristics". Since the IASB's financial reporting objective emphasises the decision usefulness to users, and I develop the FRQ measurement model based on decision usefulness, this thesis is supported by decision usefulness theory. On the other hand, since the study examines the impact of IFRS on improving reporting quality, the institutional theory lens provides an appropriate background. Therefore, the thesis is supported mainly by decision usefulness theory and supported by institutional theory from the theoretical lens.

6.1.1 Decision usefulness theory in financial reporting

The term 'decision usefulness theory' does not describe a scientific theory. Rather it was subject to a lengthy development that formalised a purpose for financial reporting mid-last century (Henderson & Scherer, 1986, p. 5). Since then, the 'theory' was further developed by monographs, committee reports, and Conceptual Frameworks issued by accounting bodies (Buys, 2011, p. 111; Coetsee, 2010, p. 10; Zeff, 1999, p. 89). For example, Coetsee (2010, p. 10) concurs that decision usefulness theory emerged through a consultative process over a period of time, and its formulation has not been based on scientific research.

The main implicit assumption behind the researchers in financial reporting is that the purpose of accounting is to provide information, primarily for the equity providers, to support in decision-making (Chambers, 2006; Staubus, 1961). Staubus (2000, p. 5) clarifies explicitly in that decision usefulness theory is "… made up of a mixture of normative and descriptive propositions". It thus is a useful lens for my work which assumes the QCs (normative constructs) carry information usefulness within (descriptive proposition). Deegan (2006, p. 12) conclude along similar lines that "… decision usefulness theory [is understood] as a particular

type of information for particular classes of users based on assumed decision-making needs". According to Bebbington, Gray, & Laughlin (2001, p. 418), decision usefulness theory is built upon the principle that the primary purpose of accounting information is to satisfy the information needs of stakeholders.

I, therefore, provide an overview of the development of how the purpose of financial reporting has been framed within the context of decision usefulness. Despite the earliest effort to develop a Conceptual Framework in the US by William A. Paton and John B. Canning in 1922, as an institutional effort to formulate a Conceptual Framework, American Accounting Association (AAA) presented the "*Tentative Statement of Accounting Principles Affecting Corporate Reports*" in 1936 (Zeff, 1999). Later, AAA through its committee of accounting academics published a monograph titled 'A Statement of Basic Accounting Theory (ASOBAT)' which promoted the decision usefulness theory in the 1960s (American Accounting Association, 1966, p. 30) in relation to the objective of accounting which was described as "the process of identifying, measuring, and communicating economic information to permit informed judgements and decisions by users of information" (American Accounting Association 1966, p. 01). Further, it identified and elaborated on four essential principles that could be used to assess the decision usefulness of accounting information: relevance, verifiability, freedom from bias, and quantifiability.

Later in the 1970s, the decision usefulness theory was further reinforced by the Trueblood Committee established by the American Institute of Certified Public Accountants (AICPA). It declared that the objective of financial statements is "to provide information useful to investors and creditors for making economic decisions" (AICPA, 1973, p. 20). The committee highlighted that the primary users are investors and creditors, and it explicitly

admitted the existence of a variety of stakeholders (AICPA, 1973, p. 18). Deviating from the previous schools of thought, the Trueblood Committee discussed that "the societal goals of an enterprise are also equally important as the economic goals" (AICPA, 1973, p. 54). The report also recognized the QCs of accounting information, such as relevance and materiality, form and substance, reliability, freedom from bias, comparability, consistency and understandability, as features that would make information useful to the stakeholders (AICPA, 1973, pp. 57-60).

Elsewhere, another attempt on the discussion of decision usefulness was made by the Institute of Chartered Accountants in England and Wales (ICAEW, 1975). They discussed the decision usefulness perspective of financial statements within the so-called Corporate Report (1975). The ICAEW (1975, p. 28) stated that the primary objective of annual reports is "to provide information useful to those having reasonable rights to such information". The Corporate Report identified users of accounting information such as equity investors, loan creditors, analysts-advisors, business contacts, employees, government and the general public (taxpayers, ratepayers, consumers, political parties, and consumers and environmental protection societies) (ICAEW, 1975, p. 17). Similar to the Trueblood Report, the ICAEW also identified the characteristics of decision-useful information as relevance, understandability, reliability, completeness, objectivity, timeliness and comparability (ICAEW, 1975, p. 28).

The decision-usefulness objective for information was accepted by the FASB: "financial reporting should provide information that is useful to present and potential investors and creditors and other users in making rational investment, credit, and similar decisions" (FASB, 1978, p. 11). Similarly, the precursor of the IASB, the IASC recognized the decision-usefulness objective stating that "the objective of financial statements is to provide information about the financial

position, performance and changes in financial position of an enterprise that is useful to a wide range of users in making economic decisions" (1989, para. 12). The IASC also stated that financial statements are expected to meet the common needs of most users such as "present and potential investors, management, employees, lenders, suppliers and other trade creditors, customers, governments and their agencies and the public" (IASC, 1989, p. 4). It identified the four principal QCs of understandability, relevance, reliability and comparability as the attributes that make that information in financial statements useful.

Later in 2004, the IASB and FASB initiated the convergence project where a first objective was to agree on a joint Conceptual Framework.[34] However, in 2010 the IASB deferred further work for this joint project and instead completed IASB's 2010 Conceptual Framework and introduced the classification of QCs into two groups, fundamental and enhancing (cf. discussion in Section 1.2). Though my study focuses on IASB's classification of QCs, it is important to note that there is no difference between IASB and FASB current classification of QCs and their interpretations.

Compared to the earlier frameworks, the IASB Conceptual Framework 2018 states that "Information about a reporting entity's financial performance during a period can also help users to assess management's stewardship of the entity's economic resources" (IASB, 2018, p. 11). Healy & Wahlen, (1999, p. 366) also noted that financial reporting helps "the best-performing firms in the economy to distinguish themselves from poor performers and facilitates efficient resource allocation and stewardship decisions by stakeholders". Therefore, reporting about the stewardship role of management provides decision-useful information that adds a further dimension to the objective of financial reporting. Bearing in mind that the

[34] See https://www.iasplus.com/en/projects/completed/framework/framework-joint

stewardship concept has undergone a development of its own over the past centuries, starting from a custodial character (Birnberg, 1980) which implies the separation of ownership and control. Today, the stewardship concept is closely aligned with agency theory, purpose and expectation agreements, and incentive structures that align agent and principal interests. Therefore, stewardship is associated with decision usefulness (Mala & Chand, 2015) and per the 2018 Conceptual Framework of the IASB plays a role in information dissemination.

From the above, I interpret that decision usefulness theory, the 2018 IASB Conceptual Framework and the purpose of financial reporting (which is to provide decision-useful information to a variety of users) are interlinked (cf. Section 1.1). This view is echoed by Staubus (1977) in that the rationale for the identification of users and uses of corporate financial information is based on "decision usefulness theory". Decision usefulness theory describes accounting as a process of providing the relevant information to relevant decision-makers for the identified decision models. Therefore, usefulness, which is recognised as the feature of quality information by IASB, is estimated by how well it satisfies users in making rational decisions. The Conceptual Framework of the IASB (IASB, 2018, p. 8) then provides the solution for the two aspects of decision usefulness of the information in line with decision usefulness theory. One is the focus of "providing relevant information" – useful to make what decisions? – i.e., "(a) buying, selling or holding equity and debt instruments; (b) providing or settling loans and other forms of credit; or (c) exercising rights to vote on, or otherwise influence, management's actions that affect the use of the entity's economic resources". The second is that information is provided "to the relevant decision-makers" – useful to whom? – i.e., existing and potential investors, lenders and other creditors.

Another angle on decision usefulness theory is in relation to assessing the quality of the information provided by entities, which has become fundamental to decision usefulness studies in financial reporting and plays a significant role in the standard-setting process (Sharma & Iselin, 2003; Staubus, 2000). Therefore, this theory frames the work in my thesis when I examine the success of achieving the expected outcome of the IASB standard-setting process (cf. the research questions - RQ3 in Section 1.1).

6.1.2 Institutional theory and IFRS adoption

In the build-up for RQ3 in Section 1.3, I noted that some developing countries converged with IFRS because of a combination of expected benefits, and pressures from external forces. In Section 5.3, I then focused on the Sri Lankan case of IFRS adoption. Such events have often been investigated within the institutional theory which posits that organisations and their actions should not be understood by isolating them from their social, political and cultural contexts (DiMaggio & Powell, 1983). Studies that use institutional theory examine, among other things, the interdependencies between accounting and its social environment (Scapens & Roberts, 1993; Scott, 1995). I do not investigate the reasons for and processes of adoption, and consequently, I do not report on the associated institutional theory literature. Rather I acknowledge that IFRS adoption in Sri Lanka is a factual observation. Still, my study is indirectly linked with institutional theory in that I use questionnaire feedback from, and annual reports generated by, the same society (more precisely put: those who were mandated to do so) that agreed to adopt IFRS. My analysis of these data *informs* and obtains an FRQ tool (cf. RQ1 and RQ2) with which one can measure the level to which the expectations from adoption have been realised (RQ3).

6.2 Research philosophy and research methodology (general view)

The following discussion applies to social science research in general. Creswell (2003) note that the choice of any specific method of research depends on the research philosophy that researchers use to conduct their study. According to Saunders, Lewis, & Thornhill (2016, p. 124), the research process involves six steps that should be followed by a researcher. These steps are represented as layers in the so-called 'research onion' which, going from outer to inner layers, relates research philosophies to encapsulate research approaches, then strategies, choices, time horizons, techniques and procedures. They suggest that researchers should understand these layers before determining data collection and analysis to explain why such research techniques and procedural choices are made in their research.

Concerning the first layer of the research onion, Saunders et al. (2016, p. 726) define research philosophy as an "overarching term relating to a system of beliefs and assumptions about the development of knowledge and the nature of that knowledge in relation to research". Baxter & Chua (2003) note that the social science literature offers a range of philosophical lenses for studying accounting phenomenon which varies from an objectified view of accounting to a socially constructed view. Regarding these lenses, Saunders et al. (2016, p. 151) opine that "there is no single 'best' business and management research philosophy".

From the five philosophies (positivism, critical realism, interpretivism, postmodernism and pragmatism) offered by Saunders et al. (2016), the nature of my RQs aligns with the positivism. According to Saunders et al. (2016, p. 135), "positivism relates to the philosophical stance of the natural scientist and entails working with an observable social reality to produce law-like generalisations". As discussed by Bryman & Bell (2015) and Saunders et al. (2016), positivists consider that social phenomenon can be measured, and thus they can be interpreted

by using quantitative methods of analysis in research. Saunders et al. (2016, p. 137) identify that "positivist researcher uses existing theory to develop hypotheses" which they test and confirm, leading to the further development of theory which then may be tested by further research. According to positivistic features discussed above, in my research, I stand from a positivistic approach since I measure FRQ in terms of QCs within the scope of the Conceptual Framework of IASB and developing an index that can be used to test whether the intended outcome of IFRS, i.e., improving quality has been achieved.

In supporting a positivistic approach that I stand on, understanding of subjectivism and objectivism is helpful to a researcher to realize and position the research within the suitable research paradigm[35]. According to Saunders et al. (2016, p. 128), "objectivism incorporates the assumptions of the natural sciences, arguing that the social reality that research is external to social actors (people)". Subjectivism assumes that "… social reality is made from the perceptions and consequent actions of social actors" (Saunders et al., 2016, p. 130). The researcher will use scientific methods to try to falsify the phenomenon under study when the researcher views reality as an object. Chua (1986) argue that studies based on positivist accounting research are perceived as providing a worldview, which claims the existence of a world with objective reality. My study addresses the problem of assessing FRQ based on regulatory support of the Conceptual Framework of IASB using quantitative data from a survey as well as content analysis of annual reports. Therefore, objectivism is the position that fits as a research paradigm with my thesis.

[35] Collis and Hussey (2009, p. 46) defined research paradigm as "the process of scientific practice based on people's philosophies and assumptions about the world and the nature of knowledge"

In the second layer of the research onion, Saunders et al. (2016) identified three approaches of theory development: deduction, abduction and induction. The deductive approach starts from theory and associated hypotheses, and then a research strategy is designed to test these hypotheses using data collected. In the deductive approach, the researcher develops a theoretical or Conceptual Framework which is subsequently tested using data (Saunders et al., 2016, p. 74). On the other hand, in the inductive approach, the research starts by collecting data to explore a phenomenon and generate or build theory (Saunders et al., 2016, p. 145). Under this approach, data are collected and analysed based on which a theory is developed (Bell, Bryman, & Harley, 2018; Sekaran & Bougie, 2016). In contrast, "an abduction approach moves back and forth, in effect combining deduction and induction" approaches (Saunders et al., 2016, p. 148). My study does not aim to develop a theory though there are elements of both inductive (choice of FRQ measures) and deductive elements (FRQ based on QCs).

The third layer of the onion is the methodological choice that a researcher should follow; a quantitative, qualitative or mixed methods research design. Saunders (2011) states that objectivity is an essential aspect of quantitative research. On the other hand, qualitative research recognises the fact that 100% objectivity is not possible; therefore, subjectivity must be acknowledged for this category of research. Moreover, Gaffikin (2005) points out that, while employing quantitative research, the researcher attempts to remain separate from the data to maintain as much objectivity as possible. Saunders (2011) propose that the survey technique is appropriate for this type of quantitative research. Saunders et al. (2016, p. 165), differentiate between quantitative and qualitative research in terms of the uses of numeric data. Though I start my research process by identifying information dimensions from the literature to assess QCs, which has characteristics of a qualitative study, I then collect data using a survey questionnaire, analyse the content of annual reports and use a data analysis procedure to derive

FRQ level of annual reports in a numerical way to examine whether the quality has improved. Therefore, my thesis is more towards of a multi-method quantitative approach.

The research strategy is an inner layer, as mentioned by Saunders et al. (2016). Understanding the research design helps determine the research strategy. Saunders et al. (2016, p. 174) note that "research can be designed to fulfil either an exploratory, descriptive, explanatory or evaluative purpose or some combination of these". While I would not mix the purpose of research (describe, explain, predict), exploratory and evaluation purposes in the same sentence, my research contains under the notion of 'research strategy' several aspects: my FRQ measurement index is developed in general to assess FRQ as an outcome of IFRS in any country context, it shows the characteristic of an evaluative study which is described by Saunders et al. (2016, p. 176) as "research concerned with assessing the effectiveness of an organisational or business strategy, policy, programme, initiative or process". Within the context of the evaluative study, I apply my FRQ measurement index to measure the quality of annual reports of Sri Lankan listed entities in the form of a single country case study as my research strategy. On the other hand, Saunders et al. (2016, p. 174) state that an exploratory study … "discover what is happening and gain insights about a topic of interest". Saunders et al. (2016, p. 727) define sequential exploratory research as a form of "mixed methods research design where initial phase of exploratory qualitative data collection is followed by the second phase of quantitative data collection". According to my research process, first, I explore the term 'FRQ' in terms of decision usefulness within the scope of the Conceptual Framework of IASB and identify qualitative information dimensions to assess QCs. This step is a form of exploratory qualitative research. I then convert those information dimensions into measurable information items and develop my FRQ measurement index. Finally, I apply my quantitative

FRQ measurement index to measure FRQ in Sri Lankan annual reports. Thus, this shows a sequential exploratory research design as stated by Saunders et al. (2016, p. 176).

Time horizon is the last layer before deciding research techniques and procedures. My study shows both the cross-sectional, i.e., "involving the study of a particular phenomenon at a particular time" (Saunders et al. 2016, p. 200) and the longitudinal characteristic, i.e., " study of a particular phenomenon over an extended period of time" (Saunders et al. 2016, p. 720). In examining investors' and lenders' perception on the use of annual reports, the importance of QC and the impact of IFRS show the cross-sectional characteristics, whereas examining FRQ in pre and post-adoption period of IFRS performs as a longitudinal study.

The final layer in the onion is the procedures used to obtain and analyse data. Saunders et al. (2016) use the term "methods" to refer to the techniques and procedures used to obtain and analyse data. Bryman (2008) stated that research method focuses on the techniques that researchers employ for practising their instruments of data collection or the tools used for analysing data. According to Figure 1-1 in Chapter 1, after identifying the information criteria to assess QCs, the usefulness of those information items will be assessed using a survey questionnaire. Chapter 7 discusses the research methods employed in the development and distribution of the survey and analysing the results. Chapter 8 examines the association between the information items selected and the relative contribution of each QCs in improving FRQ. Based on the findings of Chapter 8, research methods applied for the development of FRQ index and content analysis of annual reports of Sri Lankan listed entities in collecting data to measure FRQ are discussed in Chapter 9.

Chapter 7

Survey: development, distribution and analysis

7.1 Introduction

Questionnaire-based surveys are used to explore perceptions of participants about the study issue, for example, on various aspects in organizational practices (Joshi, Yapa, et al., 2016; Phan, Mascitelli, & Barut, 2014). A survey questionnaire is a popular and common strategy used in social science research as it allows the researcher to explore cost-effectively the opinion of a large sample of participants. The questionnaire survey method ensembles the requirement of my study as it provides respondents with freedom and anonymity (Joshi, Yapa, et al., 2016), is convenient for reaching respondents (investors and lenders) who are spread over multiple locations (Jermakowicz, 2004; Joshi, Yapa, et al., 2016), and obtains larger sample sizes. The literature on survey design indicates about several challenges when designing a survey: for example, Bryman & Bell (2015) note that the number of questions may be limited due to time constraints and the quality of the responses is reliant on the participants' ability, honesty and motivation.

The first objective of this chapter is to develop a survey instrument. The survey contains the elements which will allow me to construct the FRQ measurement index and are based on the information dimensions and sub-information items identified in Chapter 3. Then, I will discuss the distribution of the survey, who the respondents are, and provide the associated analysis. These research tasks have two aims: Firstly, in relation to RQ2 (cf. Section 1.1), from the survey responses I am examining the use of annual reports focusing on two different decision scenarios: investing and lending. This includes the frequency of using annual reports, the importance of various other sources of information compared to annual reports, the

usefulness of different sections in annual reports, factors that restrict the use of annual reports, and the adequacy of annual report information (cf. Appendix 1 – Section B of the survey). In relation to RQ2, I also analyse the importance of QCs and the perceived impact of IFRS on FRQ (cf. Appendix 1 – Section C of the survey). Secondly, and in relation to RQ1 (cf. Sections 1.1 and 1.4), this chapter examines the usefulness of information items recognized in Chapter 3, which is to identify whether decision usefulness varies between investment and lending decisions (cf. Appendix 1 – Section D of the survey).

7.2 Background to the survey

The IASB in its Conceptual Framework recognises investors (equity holders) and lenders (debt holders) as the main groups of users of financial reporting in the form of major capital providers. Considering the diverse decisions that these two main user groups engage in, there is a continuous debate among academics and practitioners about the capacity of satisfying the needs of these diverse user groups by one set of general-purpose financial reporting standards. Similarly, a discussion can be held about whether or not a single financial report caters for the information needs of both user groups. Supporting this argument, consider some of the more frequently occurring scenarios: Both existing and potential investors decide about whether to invest or disinvest in a business. If the investor takes a short-term view, then, share price movements may be of interest. In contrast, a longer-term view would focus on dividend policy and earnings forecasts. On the other hand, a short-term loan creditor may focus on current cash flows. In contrast, medium and long-term creditors may review the future cash flow potential of the business, and its credit rating. Both would have an interest in current and prospective profitability, solvency and growth prospects of the entity assuring the ability of the entity to repay the loans and interest.

These stakeholders' different objectives might result in diverse informational needs. Supporting this, Benjamin & Stanga (1977) concluded that there is a significant difference between the investors' and lenders' information needs from annual reports. On the other hand, if the needs of these user groups are distinct, it will be difficult to satisfy their needs employing a single set of general-purpose financial statements (e.g., Scott & Smith, 1992). Rudkin (2007) supported this argument that the users are not a homogeneous group and that the same information cannot similarly satisfy them as they have divergent financial skills, interests, and purposes. As a result, investors and lenders may wish to have dissimilar information while information providers also may wish to develop diverse information sets for important user groups.

Therefore, user perceptions on the use of annual reports is an important subject matter during the past few decades. Arguments have been raised by researchers about the continuing usefulness of financial reports to users in light of financial reports being too promotional and biased (Scott & Smith, 1992). All of the above relate to the observation made by McCartney (2004) that financial information is less relevant, because it does not refer to users' individual preferences, decision models, or their actual use of information (Williams & Ravenscroft, 2015).

On these grounds, over the past decades, many researchers have conducted research and surveys to discover the nature of users, their needs, and the usefulness of annual reports in meeting those needs (cf. Table 7-1 and Table 7-2). An examination of those research publications and survey reports reveals several important characteristics which provide a foundation for my survey.

Table 7-1 – Recent user needs surveys by professional organizations

Country	Author and Year	Survey information
Australia	CPA (2018)	A research report on decision usefulness in financial reports for investors published by CPA Australia using a total of 17 interviews: investors (7), regulators (5) and practitioners (5)
New Zealand	XRB & McGuinness (2018)	Survey based on CFOs of Deloitte Top 200 companies and NZX listed entities with 92 CEO responses and investors, industry organisations, NGOs and universities
New Zealand	Deloitte (2013)	Perspectives on annual reporting. Annual reports based on a sample of 100 firms complying with NZ IFRS, with a separate sample of 30 firms applying differential reporting concessions
UK	FRC (2017)	FRC's assessment of corporate reporting in the UK based on FRC's monitoring work on cases opened in the year to 31 March 2017 - thematic reviews
UK	CFA (2015)	Annual survey with 290 investors on financial reporting and analysis conducted by CFA-UK – Financial Reporting and Analysis Committee
USA	PwC (2017)	Investor survey on US Corporate Reporting: US-based firms 354 respondents and in-depth interviews with 38 individuals
USA	KPMG (2014)	KPMG Survey of Corporate Responsibility Reporting using 10K annual reports
USA	PwC (2011)	Survey 22 investment professionals on investor's views of annual reports in the UK

Table 7-2 – Selected annual reports and user need studies

Country	Author and year	User groups	Responses/rate	Survey method
Australia	Chenhall & Juchau (1977)	Investors	476 (46%)	Postal survey
Australia	Anderson (1998)	Shareholders	436 (N/A)	Postal survey
Bahrain	Al-Ajmi (2009)	Stockbrokers as investors	341 (42.6%)	Postal survey
Bangladesh	Biswas & Bala (2016)	Individual investors	316 (63.2%)	Questionnaire survey.
Europe and the US	Hjelstrom et al. (2014)	Users of financial reports from identified companies in Sweden, the US and the UK	40 (N/A)	Interview
Europe	Gassen & Schwedler (2010)	Professional investors and their advisors	383 (1.9%)	Online survey
India	Joshi & Abdulla (1994)	Sophisticated and unsophisticated investors	212 (25.5%)	Postal survey
Iran	Mirshekary & Saudagaran (2005)	Bank loan officers, academics, stockbrokers, investment officers, institutional investors, auditors, tax officers	245 (49%)	Personal distribution and by post mail
Iran	Chatterjee et al. (2010)	Financial analysts	51 (20%)	Distributed directly by the researcher
Kuwait	Naser et al. (2003)	Institutional and individual investors, stockbrokers, financial analysts, auditors, tax officers, Academics	306 (77%)	Personally distributed and Postal survey
New Zealand	Ehalaiye et al. (2018)	Advisors, investors, lenders, regulators, other (from the public and private sector)	162 (N/A)	Online, emails through professional organizations
Qatar	Alattar & Al-Khater (2008)	Individual investors, institutional investors, financial analysts, bank credit officers and government officers	150 (68%)	Personally distributed survey
South Africa	Stainbank & Peebles (2006)	Preparers (financial managers) and users Unit trust managers	72	Postal survey response rate – 38% preparers and 17% users
Sri Lanka	De Zoysa & Rudkin (2010)	Accountants, executives, bankers, tax officers, academics, financial analysts, and investors	264 (46%)	Personally distributed and post mail
USA	Stanga & Tiller (1983)	Loan officers in small and large banks	230 (57%)	Postal survey
USA	Stanga (1976)	Chartered financial analysts	275 (34%)	Postal survey
USA	Benjamin & Stanga (1977)	Bankers and financial analysts	408 (35%)	Postal survey
Vietnam	Son et al. (2006)	Bank credit managers, financial advisors, statistics officers, tax officers, chief accountants, owner/directors	19 (20%)	Interview

Very few studies have examined the use of annual reports for investment and lending decisions individually, as per the objective of financial reporting set by the IASB. It is expected that annual reports provide information in line with the IASB objective, which is to facilitate investment and lending decisions. It then should be of interest if the usefulness of the information in the reports can be assessed to inform the level of achieving the intended objective. However, very few studies (e.g., Alattar & Al-Khater, 2008; Al-Ajmi, 2009; Benjamin & Stanga, 1977) have been carried out to examine whether annual reports support the information requirements for those decisions.

Most of the user needs studies (e.g., Chatterjee et al., 2010; De Zoysa & Rudkin, 2010; Mirshekary & Saudagaran, 2005; Naser et al., 2003; Son et al., 2006) were conducted focusing on different user groups based on their general professional/occupational roles such as accountants, loan officers, individual investors, stockbrokers, company executives, advisors, government officials, auditors, or tax officers. A small number of studies (e.g., Al-Ajmi, 2009; Benjamin & Stanga, 1977; Chenhall & Juchau, 1977; Stanga & Tiller, 1983) focused on users' specific decision roles relating to their actual job positions, such as investment or lending roles. For example, accountants or company executives may use annual reports as preparers of financial statements for, making personal investments, advising clients on making investments, or for making lending decisions. The usefulness of annual reports depends on the purpose of their use and the type of decision being made by specific users. Hence, the usefulness of information presented in annual reports should be assessed in relation to those different decision types before concluding to what degree the objective of financial reporting was met. I display the practical differences between this body of literature and my study in Figure 7-1.

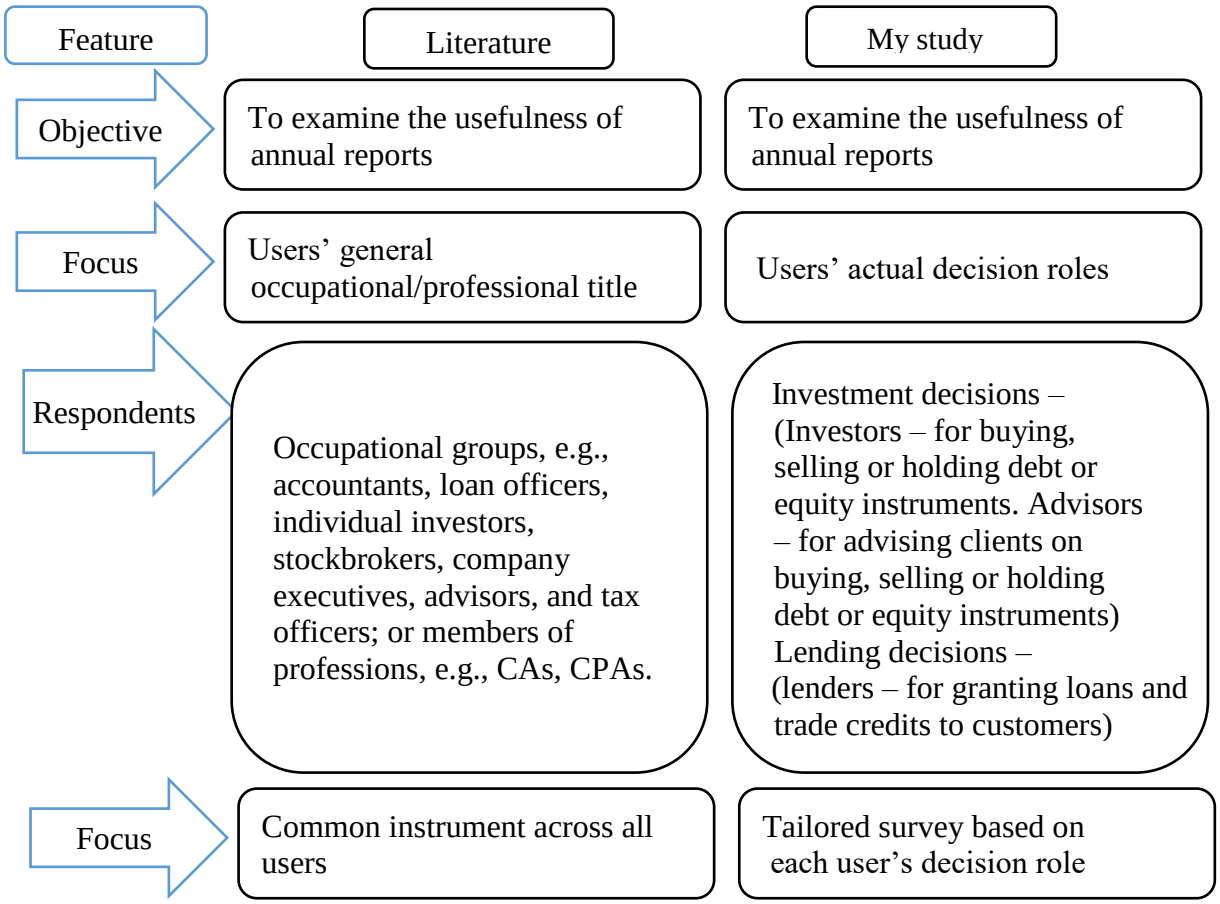


Figure 7-1 – Differentiating literature vs my study

One of the critical features in most of the studies mentioned above is the ranking of the usefulness of information based on the overall mean average scores for all different users together. Studies (e.g., De Zoysa & Rudkin, 2010; Mirshekary & Saudagaran, 2005; Naser et al., 2003) place accountants, academics, investors and lenders in the same survey target group to examine the usefulness of the information in annual reports. It would seem difficult to understand the overall usefulness of annual reports when ignoring the particular decision-making scenarios of different users. Consequently, to arrive at appropriate inferences about the quality of these reports and to conclude to what degree the primary objective of financial reporting has been obtained. Therefore, my survey focuses on investment decision-makers and lending decision-makers separately.

A further factor concerns the choice of respondents. Most studies look at countries with developed economies and developed capital markets. Only a few studies (e.g., Ahmed, 1993; De Zoysa & Rudkin, 2010; Joshi & Abdulla, 1994) focused on developing countries in the South Asian region. Concerning the timing, I have noticed that more studies in developing countries on the user needs of corporate annual reports date before the introduction of IFRS (e.g., Ahmed, 1993; De Zoysa & Rudkin, 2010; Joshi & Abdulla, 1994; Mirshekary & Saudagaran, 2005; Son et al., 2006). The adoption of IFRS has led to major transformations[36] of accounting systems throughout South Asia. Most developing and emerging economies, especially in South Asia, have adopted IFRS in the past decade, e.g., Sri Lanka adopted IFRS in 2012, Bangladesh in 2013, and Nepal in 2014, while India has been in the process since 2011. However, no survey has examined the decision usefulness of annual reports and information needs to make investment and lending decisions in developing countries, especially after adopting IFRS.

7.3 Research methods applied in developing the survey

In line with RQ2, the following sections discuss the research methods applicable to surveying investors and lenders.

7.3.1 Design the survey instrument

Previous studies (e.g., Burns et al., 2008; Passmore, Dobbie, Parchman, & Tysinger, 2002; Sheatsley, 1969; Stone, 1993) give explicit guidance on survey design which was applied to the current study. There are five steps:

[36] Sunday Observer, January 26, 2011– Mr. Asite Talwatte, Country Managing Partner of Ernst & Young comments: "With the introduction and recent amendments of many standards, there is an intensifying need for changes in accounting and reporting, business processes as well as IT systems.

Step (1) – Decide on the information to be collected from the survey participants

The research questions dictate the particular respondent groups to the survey, who are people who have either investment experience (investors), advise on investment decisions (advisors) and have experience in lending (lenders). The inclusion of a third group (advisors) is discussed in Section 7.4.1. I then select, with reference to the research objectives and SRQs (cf. Chapter 4), the broad information categories I must include in the survey. The following tasks guide this selection:

(i) previous literature relating to user needs studies and surveys conducted by various international professional bodies (Chapters 3 and 4, Table 7-1 and Table 7-2);

(ii) existing annual report practices of Sri Lankan entities (Chapter 3);

(iii) annual report publishing guidelines issued by CASL (Chapter 3);

(iv) prescribed accounting standard practices and other statutory disclosure practices in Sri Lanka (Chapters 3 and 5); and

(v) personal communication in telephone interviews with three professional accountants, a representative from the Sri Lanka Accounting and Auditing Standards Monitoring Board, and in face-to-face discussions with senior academics including the supervisory team.

The result from the above sources is that my survey will have four main sections:

- Section A: demographic information;
- Section B: the usefulness of annual reports;
- Section C: the importance of QCs; and
- Section D: the usefulness of information for assessing QCs.

Step (2) – Selection and wording of survey questions

Section A – Section A is the same for all three groups of participants and gathers their demographic information, including gender, age, professional qualification, job role and years of experience. This section provides a foundation to understand the participants' background profiles. The job role and years of experience on investment, investment advisory capacities, or lending within that particular job role are important pieces of information that I extract from the participants. For example, an accountant can work as the preparer of financial statements, as an individual investor, and/or he or she can advise clients on making an investment or lending decisions; a financial consultant consults for investment or lending decisions or may have more experience as an individual investor. I thus extract the context in which to interpret the responses, a contrast to the reviewed survey-based literature (e.g., De Zoysa & Rudkin, 2010; Mirshekary & Saudagaran, 2005; Naser et al., 2003) which classified respondents according to their professional and occupational title, rather than the actual decision experience they possess. The relevant question in my survey allows respondents to classify themselves into either someone who makes investment decisions by themselves (investors), someone who provides advice on making investments (advisors), or someone who makes lending decisions (lenders).

Section B – Section B focused on the use of annual reports for investment and lending decisions and was tailored for the three types of participants (advisors, investors, and lenders) using suitable wording to link each survey question with the decision types that they make (investment, lending, or advising clients). For example, for the question that asked about the frequency of using annual reports, different types of decisions were offered for investors, financial advisors and lenders. According to the survey question number 8, (cf. Appendix 1 – Survey Questionnaire) for investors: "how important are the following sources of information

for you in forming an opinion that supports investment decisions?", it was formulated to lenders; "how important are the following sources of information for you in forming an opinion that supports lending decisions?" Thus, respondents were asked to answer all the questions in this section based on their experience provided in section one of the questionnaire, i.e., investment, lending or advising[37]. This section ended up including six questions. One question examines the frequency of using annual reports for different types of investment and lending decisions. Two questions test the sources of annual reports and the usefulness of different parts of annual reports. The usefulness and the adequacy of information in annual reports are tested separately with two questions, and a final question is devoted to asking about the factors that restrict the use of annual reports.

Section C – In this section respondents were asked to answer all the questions based on their experience in respective decision roles, i.e., investment, lending or advising. Section C includes only two questions. One that asks about the importance of QCs in relation to the respondents' decision roles, and second from with which I ask the perception of the participants about the impact of the IFRS on QCs and FRQ. Since the QCs include technical terms which may be interpreted ambiguously by respondents, a separate explanation is given about the QCs at the beginning of this section.

Section D –The last part of the questionnaire focuses on assessing the usefulness of the listed information items that are used to assess QCs with respect to making investment and lending decisions (cf. Section 1.4 – Step 2 in the thesis process). This section also provides clear instructions to respondents to assess the usefulness of the given information items based

[37] For example, in the advisors' questionnaire, a separate note included on the top of the questions as "answer the following questions based on your experience in advising clients with respect to buying, holding, or selling equity or debt instruments"

on their experience in either investment, lending, or advising clients on investments. A five-point Likert scale as (0) – 'not useful', (1) – 'somewhat useful', (2) – 'useful', (3) – 'very useful' and (4) – 'extremely useful' was used to measure their responses. There are 54 sub-information items under 17 information dimensions included in this section. These information dimensions and individual sub-information items are used to measure QCs and discussed in Chapter 3. Hence, the purpose of this section is i) to identify the degree with which the sub-information items measure QCs, and ii) to identify whether there is a significant difference between the groups of respondents.

The challenge in identifying information items to measure QCs is due to the absence of a universally accepted list or index of information which is useful for investment and lending decisions in relation to QCs. Increasing the number of information items is one way to mitigate the personal bias of the researcher when selecting them. However, this will make the questionnaire excessively lengthy, leading to poor responses and a poor response rate. To mitigate this issue, I have chosen as broad a base as possible from the literature search in terms of the research objectives (cf. Chapter 3). Beest et al. (2009) and Braam & Beest (2013) used this approach to identify measures for QCs, as discussed in Section 2.4. In user need surveys some authors (e.g., Burns et al., 2008; De Zoysa, 2003; Ho & Wong, 2001; Joshi & Abdulla, 1994; Ahmed, 1993; Mirshekary & Saudagaran, 2005; Wallace, 1988) concur with this approach in their studies. For example, Mirshekary & Saudagaran (2005), selected information items for their user need survey in Iranian entities initially based on literature search. Additionally, other researchers in Asia, for example in Sri Lanka, De Zoysa & Bhati (2011), India: Joshi & Abdulla (1994) also used literature search in selecting information items for their user need surveys.

Step (3) – Questionnaire versions/mode of distribution

The questionnaire was designed to collect information in the form of both an online and a paper-based survey (cf. Section 7.3.2). I have designed three versions of the paper-based questionnaires, each of which included the same questions but with customised wordings to address the three groups of participants within their appropriate and familiar decision-making context. The online email survey was designed on the Qualtrics survey platform of the University of Canterbury. I have used the same questions as on the paper-based surveys and sent the link to the Qualtrics platform by email to the participants.

The online platform was designed mainly to increase the response rate by reaching different groups of people. In particular, my intention with having an online version of the questionnaire was to reach 'high-value', busy corporate professionals by maximizing the convenience for them to respond (Van Selm & Jankowski, 2006). In using the online mode, I also tried to mitigate the reported difficulties in obtaining responses in previous surveys in Sri Lanka and other emerging markets (De Zoysa & Rudkin, 2010). The online mode of the survey was also convenient because the appropriate formulation of the questions was programmed to appear automatically after a person decides in Section B, which decision-making scenario they identified with. For example, if a participant selected that he/she had the most experience in investment decisions, the respondent would receive all the questions in the questionnaire customised for investment decisions.

Generally, the academic literature finds benefits from the mixed-mode survey distribution: online email surveys are more effective with populations that are difficult to access, and this allows researchers to draw from a more representative participant pool. De Bernardo & Curtis (2013) argue that online surveys can be used more effectively when

combined with a paper-based approach, as this allows researchers to draw from a more representative participant pool. Online surveys give the benefits of reduced cost, ease of data entry, format flexibility, and ability to access different populations while, as with any survey method, measurement errors, low response rates, and possible non-representativeness of the sample must all be addressed to obtain meaningful data (Granello & Wheaton, 2004). In contrast, according to de Bernardo & Curtis (2013), mixed-mode surveys (i.e., using online email surveys together with the paper-based questionnaire), can help to mitigate most common issues in online email surveys. Borkan (2010) and Schonlau, Asch, & Du (2003) suggest that an online survey is more effective when mixed with a paper-based survey to mitigate the problems of applying those methods individually. Even though the mixed-mode approach to collecting data with online electronic mails and paper-based surveys is time-consuming and costly, it can help to address the most common issue, i.e., the low response rate with online surveys, producing higher response rates (de Bernardo & Curtis, 2013) for the overall project. Dolnicar, Laesser, & Matus (2009) also verify that multi-method surveying is a reliable way to collect data, rather than format-specific self-selection of respondents to participate in surveys. I could not find in the literature drawbacks from combining paper-based and online-email surveys, but rather the benefits discussed above. I eventually obtained a large number of respondents to allow me to investigate users from the perspective of investment and lending decisions at a level from which general conclusions would be drawn.

After finalising the survey wording and design, and before implementing the pilot test, a pre-test was conducted in December 2018 with three PhD students at the University of Canterbury for the paper-based and the online forms. The main purpose of conducting a pre-test before the pilot test was to identify any problems specifically related to the wordings and

the flow of the survey. The participants' responses were discussed with them, and their suggestions regarding the length and wordings were incorporated.

Step (4) – Pilot test the questionnaire

After finalising the paper-based and online mode of the survey, in December 2018 and January 2019 it was used for the pilot test with 16 participants from New Zealand (2) and Sri Lanka (14) to identify omissions and ambiguity. Pilot test participants comprised of three academics in accounting (2 online and 1 paper-based), three individual investors (2 online and 1 paper-based), two investment advisors (1 online and 1 paper-based), four professional accountants (3 online and 1 paper-based), and four bank loan officers (2 online and 2 paper-based). In addition to examining the responses given by the pilot test participants, I discussed the survey responses over the phone with two chartered accountants, one CFA and three senior accounting academics to obtain their detail feedback before implementing the survey.

Step (5) – Revised the questionnaire after receiving responses from the pilot survey.

After the pilot test, some modifications were made to the online as well as paper-based forms; to enhance the clarity of the questions (changed the wording); to reduce the length of the survey (omitted some questions); to improve convenience and understanding (changed the presentation layouts, used colours, gave additional instructions, re-arranged order of questions); and to improve the information content (added, changed, and omitted some information items). The approval of the Human Ethics Committee of the University of Canterbury was obtained for the final version of the questionnaire (cf. Appendix 2 – Human ethics committee approval letter).

7.3.2 Selection of sample and method of approaching the respondents

The survey included technical matters relating to the usefulness of information for investors and lenders, and it required a certain level of understanding in accounting and annual reporting. The respondents, therefore, must have experience in either investment or lending decisions with an accounting-related educational background. The literature suggests that professional experts are suitable respondents for this nature of the survey due to the requirement of accounting-related knowledge. Gassen & Schwedler (2010) and Stanga (1976) used CFAs as professional investors and advisors. Joshi & Abdulla (1994) used professional chartered accountants-cum-investors and accounting teachers-cum-investors as sophisticated investors. Elliott, Hodge, Kennedy, & Pronk (2007) suggested that graduate business students are a good proxy for non-professional investors.

The paper-based approach was used when I could clearly identify a person as belonging to a specific decision type and when they could be approached in person, for example, individual investors on the Colombo Stock Exchange (CSE) trading floor or bank loan officers as direct parties who make lending decisions. When the types of decisions were not obvious, and the respondents were not physically approachable, the online electronic form of the questionnaire was used. For example, CAs and CFAs might respond as investment or as lending decision-makers. Table 7-3 contains the final number of respondents categorised into the three decision types and questionnaire modes. The following two sections discuss the latter in detail.

Table 7-3 – Distribution of sample between user groups based on job titles

Job/title	Investment decisions (235)						Lending decision (214)		
	Investment advisors (88)			Investors (147)			Lenders (214)		
	Paper	Online	Total	Paper	Online	Total	Paper	Online	Total
Financial analysts	3	7	10	2	2	4	0	0	0
Financial consultants	6	8	14	0	3	3	0	0	0
Stockbroker	13	9	22	8	1	9	0	0	0
Partners in audit firm	3	12	15	2	6	8	0	0	0
Accountants in companies	1	7	8	0	27	27	0	17	17
Employees in companies	1	3	4	2	4	6	1	7	8
Managers in companies	6	9	15	3	30	33	7	11	18
Individual investors	0	0	0	17	40	57	0	0	0
Bank loan officers	0	0	0	0	0	0	81	90	171
Total	**33**	**55**	**88**	**34**	**113**	**147**	**89**	**125**	**214**

7.3.2.1 Paper-based questionnaire

Sri Lanka does not have 'organizations' in which investors and lenders aggregate, such as the NZ Shareholder Association, which would make the identification of particular respondents easier. However, it is recognized that there are specific locations where investment and lending decision-makers are gathering, such as CSE, stock brokering firms, and the College of Banking Accounting and Finance (COBAF). Hence, I used the chunk sampling method and approached participants based on individual accessibility at these selected locations. A 'chunk' is a convenient slice of a population. A judgement sample is planned with expert judgement (Deming, 1966), and chunk sampling is the selection of individuals based on their availability (Burns et al., 2008). Hence, my sample for the paper-based questionnaire consists of chunks of students in a credit management course at COBAF, CSE trading floor investors and brokers from stock brokering firms. In total, 156 paper-based responses were obtained from these three groups.

I obtained approval from COBAF to distribute the survey among their diploma participants in a credit management course. After an initial discussion with the administration of COBAF, that course was selected because these participants worked in banks (representing 16 different banks in Sri Lanka) and took this diploma course as in professional development. After explaining the purpose of the survey to the respondents in the class on 3rd February 2019, a total of 105 questionnaires were distributed, and 95 questionnaires were returned. Out of them, 89 responses were 100% complete, which I included in my sample.

I also obtained permission from the CSE to visit and approach people at four branches of the CSE at Colombo, Kurunegala, Kandy and Negombo. I then visited the CSE-Colombo trading floor on three days in February 2019, distributed 27 questionnaires, and had 25 people completing and submitting. In the other three branches, comparatively few investors visited regularly. Hence, I was only able to distribute nine questionnaires, which were duly completed and returned and were usable.

Based on the contact received from the stock brokering companies that are operating on the CSE trading floor, three stock brokering firms were contacted, and 60 questionnaires were distributed, 20 at each. The brokering firms agreed to allow their staff to complete the survey if they voluntarily gave their consent. Further, the three firms agreed to inform their customers and invite them to complete the survey. Several reminders were given, and after two weeks, 42 questionnaires were returned from those three brokering firms (42=17+12+13), out of which 33 questionnaires were fully completed.

7.3.2.2 The online email questionnaire approach

The online email version represents a so-called purposive sampling approach where individuals are selected because they meet specific criteria such as accounting understanding. Mugenda (2013) states that purposive sampling is a sampling technique that allows a researcher to get cases that have the required information concerning the objective of the study. In purposive sampling, "the researcher needs to use judgement to select cases that will best enable to answer research question(s) and objectives" (Saunders et al.,2016, p. 301). Therefore, I approached members of CASL, CFA Society Sri Lanka, and prospective participants from the database of the alumni association of the Department of Accountancy, University of Kelaniya. The three groups are discussed in turn below.

After getting approval from CASL, the online email questionnaire was sent to all its members. This is because there is no database that contains information about their job or decision role as investor, advisor or lender. On the cover letter, I mentioned that the survey is for the members who have experience in investment, advising or lending decisions, and they then could choose accordingly. Of the total 5649 active members in 2018, 295 CAs responded by clicking on the survey link, and 102 completed the survey representing investment and lending roles. This low response rate may not solely be because of a c to respond to the survey but may be due to the eligibility restriction put in the cover letter stating that the survey was only for members who have experience in investing lending, or investment advisory decisions.[38]

[38] Therefore, the current study consider the voluntarily approached respondents to calculate the response rate

The total CFA memberships in Sri Lanka was 123 members as of December 2018. The CFA Society Sri Lanka agreed to send the survey link via email with the cover letter to its members and invite them to participate. Twenty-two members responded and completed the survey representing investment and lending decision roles.

The third group that I have invited to participate in my study was graduates from the Department of Accountancy, University of Kelaniya, Sri Lanka, whose contact was established through the database of the alumni association of the department. Using this database information, all the accounting graduates who worked in banks, financial institutes and stock brokering companies were selected as prospective respondents. This amounted to 247 emails that were sent to the selected sample, with 169 responses received. All respondents represented investment, advisory or lending roles.

In total from all three groups, 293 online responses were received (cf. Table 7-3).

7.3.2.3 Response rate

The response rate is a key concern in survey research because a low response rate may lead to non-response bias which may result in misleading inferences about the issues the survey tries to bring to light. Thus, a high response rate is desirable and seen as an important criterion by which the quality of a survey is judged (Shih & Fan, 2008). de Bernardo & Curtis (2013) highlighted that one of the drawbacks of email research is that, if the sampling frame is unknown, one cannot derive a response rate.

The literature suggests different methods for improving the response rate in surveys. Using monetary incentives and giving feedback on the survey are two of the main methods

stated by Bryman & Bell (2015). Nulty (2008) suggested that the use of respondent incentives is another way to increase the response rate to surveys, possibly. Hence, my study included three prize draws of NZ$200 each for the randomly selected respondents who completed the survey and indicated in the cover letter that the survey feedback was to be sent to participants on their request. Cash price winners were drawn, and cash prizes were awarded on in August 2019. The feedback on the survey was sent to the requested respondents in December 2019.

Researchers have noted that there are several ways of calculating a response rate. In my study, the response rates were calculated using the formula of "number of the completed survey as a percentage of the number of emails sent or number of questionnaires distributed for each group" (De Zoysa & Rudkin, 2010; Mirshekary & Saudagaran, 2005; Naser et al., 2003). However, the main problem with email surveys for CAs is the impossibility of calculating the response rate since there is no way to know how many CAs engage with investment or lending decisions. One method to deal with this uncertainty is by keeping track of the number of CAs who attempted to participate by clicking the survey link. This approach was suggested by Kaye & Johnson (1999) for conducting web-based surveys to keep track records for the number of people who log into the web during the survey period. Accordingly, in the case of the emails sent to CAs, the response rate was calculated using the formula of 'completed responses as a percentage of the number of respondents who clicked the survey".

The total number of responses to the questionnaire was 449 giving an average response rate of 54% (cf. Table 7-4). This response rate compares favourably to the previous studies listed in Table 7-2. Out of those studies, only a few recorded a greater than 50% response rate. Also, the current study records a higher number of responses (449) compared to the studies in Table 7-2. In terms of survey response rates, the literature suggests electronic surveys, in

general, have lower response rates than paper-based surveys (Bandilla, Bosnjak, & Altdorfer, 2003; Cole, 2005; Dolnicar et al., 2009). In the current study, a high response rate (86%) was achieved for the paper-based questionnaire, while the response rate for the emailed questionnaire was 44%.

Table 7-4 – Response rates for email and paper-based questionnaires between response groups

Survey mode	**Response rate**		**Categories approached**					
Total email questionnaires	No.	Usable response rate	CAs *(target)*	*Response rate*	CFAs	*Response rate*	Accounting Graduates	*Response rate*
	293	44%	102 (295)	*35%*	22 (123)	*18%*	169 (247)	*68%*
Paper-based– total responses received	No.	Response rate	COBAF *(Response rate)*		CSE floor investors *(Response rate)*		Stock-brokering firms *(Response rate)*	
	173	86%	95 *(90%)*		36 *(100%)*		42 (*70%)*	
Paper-based– usable responses received	No.	Usable response rate	COBAF *(Response rate)*		CSE floor investors *(Response rate)*		Stock-brokering firms *(Response rate)*	
	156	78%	89 *(85%)*		34 *(94%)*		33 *(55%)*	
Total responses for the survey	**449** (overall response rate: 54%; usable response rate: 52%)		Total emails questionnaires = 665 (CASL 295+ Alumni members 247+ CFA 123) Total paper questionnaires = 201 (COBAF 105 + CSE 36 + Brokering firms 60)					

7.3.3 Mode effect

The term ‘mode’ refers to the way in which data are collected in the survey and, ‘mode effects’ refers to any influence on survey responses that is due to the mode of collecting this data. Given the advantages and disadvantages of online surveys, their validity may be partially impaired. To address this the mixed-mode method for surveys (paper-based and online) is increasingly popular (Dillman, 2011; Greenlaw & Brown-Welty, 2009), even though there is an indication of a mode effect (Borkan, 2010). The degree to which the mode effect influences negatively on a study is context-specific and no general conclusions have been drawn. For

example, Bandilla et al. (2003) and Knapp & Kirk (2003) identify that there is no mode effect in mixing paper and online modes of data collection. Borkan (2010), Carini, Hayek, Kuh, Kennedy, & Ouimet (2003) and Dixon (2007) suggest that there is a limited impact of the mode of approaching data collection. In contrast, Sethuraman, Kerin, & Cron (2005) stated that online and offline data collection methods might produce substantially different results.

I applied the following steps to mitigate the mode effect, and to maintain a proper integration of paper-based and email questionnaire results and consistency in how the data from both surveys are obtained:

(i) I used the same questions in the same order with the same wordings in both questionnaires.

(ii) Three versions of both questionnaires were designed based on participants' experience in investment, advising or lending decisions, and these versions were in the same for each mode.

(iii) The same cover letter was attached to both modes, with information about the purpose of the study and the nature of the questionnaire.

(iv) The questionnaire was pre-tested before starting the survey. This assures that the respondents understand the questions in the same way in both modes and would respond similarly in both modes.

(v) Respondents were not given a choice of selecting the mode of responding.

(vi) Before implementing the final survey, a test-retest reliability test was performed to identify whether there was any difference between the online and paper-based questionnaires using eight participants (cf. Section 7.3.4).

To test the size of the mode effect numerically, I used the Mann-Whitney-U test in the SPSS to examine whether the distribution of the responses for the 123 different items in the survey (excluding demographic data) was the same across online email and paper-based questionnaires. The results are discussed for the three different decision types below.

For advisory decisions (cf. Table 7-5) only nine items (7.3% of total variables in the survey) make a significant difference in the responses between the email and paper-based surveys. I, therefore, reject the Null hypothesis that the distribution of those nine items is the same across email and paper-based responses. As per Cohen (1988, 1992), the effect size is $abs(r) = abs(Z/\sqrt{N})$, where Z is the Mann-Whitney statistic (my sample size is much larger than the benchmark of 30 observations in which case the Mann-Whitney U statistic follows the Normal distribution and can be interpreted by the Z value), and N is the number of observations. If $abs(r) < 0.3$ for an item tested it is categorised as a medium effect.[39]

Table 7-5 – Online vs manual responses – Advisors

Response items	**Mann-Whitney Z**	**Asymp. Sig. (2-tailed)**	**Effect size**
			$abs(r) = abs(Z/\sqrt{N})$
Advice from a friend	2.386	.017*	0.25
Personal knowledge	3.070	.002**	0.33
Segmental info	2.424	.015*	0.26
Relevance	2.072	.038*	0.22
Comparability	2.896	.004**	0.30
Comparability after IFRS	2.216	.027*	0.24
Forecasted profit	2.009	.045*	0.21
Future strategies	2.386	.017*	0.25
Comparatives with industry	2.196	.028*	0.23
Level of significance: *: significant at 5%; **: significant at 1% (N=88; paper-based = 33; online=55)			

[39] Cohen's guidelines for abs(r) is that a large effect is .5, a medium effect is .3, and a small effect is .1(Cohen, 1988; Fritz, Morris, & Richler, 2012).

In relation to the investor's group, 17 items out of 123 items (13.8% of total variables in the survey) had a statistically significant difference (cf. Table 7-6). The effect sizes (r) for all the 17 variables are close to 0.3, which again is classified as a medium effect.

Table 7-6 – Online vs manual responses – Investors

Response items	**Z**	**Asymp. Sig. (2-tailed)**	**Effect size**
			$abs(r) = abs(Z/\sqrt{N})$
Adequacy of annual report information	2.162	.031*	0.20
Social responsibility report	2.278	.023*	0.21
Relevance	2.744	.006**	0.26
Faithful representation	2.529	.011*	0.24
Forward-looking Information	3.429	.001**	0.32
Forecasted revenue	2.205	.027*	0.21
Forecasted profit	2.412	.016*	0.23
Asset, liability and equity measured at historical cost	2.323	.020*	0.22
Information on capital structure	2.588	.010*	0.24
Explanation of debt and equity	3.337	.001**	0.31
Unmodified audit report	2.122	.034*	0.20
Explanations of accounting estimates & policies	2.195	.028*	0.21
Shorter sentences	2.577	.010**	0.24
Providing ratios	2.692	.007*	0.25
Analysis of ratios	2.087	.037*	0.20
Annual reports finalised before 3 months	2.623	.009**	0.25
Annual reports published before 3 months	2.775	.006**	0.26
Level of significance: *: significant at 5%; **: significant at 1% (N= 147, Paper based = 34, Online =113)			

As for the lenders' group, 16 items out of the 123 items (13.0% of total variables in the survey) had a statistical difference (cf. Table 7-7). The effect sizes range from 0.14 to 0.3, which can be categorised as a medium effect, at best.

Table 7-7 – Online vs manual responses – Lenders

Response items	**Z**	**Asymp. Sig. (2-tailed)**	**Effect size**
			$abs(r) = abs(Z/\sqrt{N})$
Personal knowledge	2.641	.008*	0.18
Adequacy of annual report information	2.805	.005*	0.19
Forward looking Information	3.552	.000**	0.24
Future strategies	2.366	.018*	0.16
Segmental cash flow	2.553	.011*	0.17
Asset, liability and equity measured at historical cost	4.272	.000**	0.29
Asset, liability and equity measured at fair value	3.757	.000**	0.26
Information on capital structure	2.569	.010*	0.18
Arguments of explanations of acc. est. & policies	2.838	.005*	0.19
Limitations of accounting estimates & policies	2.716	.007*	0.19
Fact affecting accounting estimates & policies	2.039	.041*	0.14
Reasons for change accounting estimates & policies	2.592	.010**	0.18
Shorter sentences	4.349	.000**	0.30
Use of non-technical terms	3.782	.000**	0.26
Providing ratios	2.943	.003*	0.20
Annual reports published before 3 months	2.947	.003*	0.20
Level of significance: *: significant at 5%; **: significant at 1% (n= 214 Paper based = 89 Email=125)			

In conclusion, I found a medium mode effect in responses to a small fraction of the 123 information items in the survey. For example, ‘advice from a friend’ (cf. Table 7-5) is one information item out of nine that I ask about within the same question (No. 8. “How important are the following sources of information for you in forming an opinion that supports your investment decisions?”). Since the online email survey focused on professionals (CAs and CFAs) and accounting graduates, and the paper-based questionnaire was predominantly answered by loan officers pursuing a diploma in credit management and are a comparatively young group, stock brokering companies and CSE floor investors who are mature and a comparatively older group, a difference in some information items is expected. Thus, the difference in the demographic data (age), qualification and experience level between these

groups may result in a small overall mode effect (cf. Table 7-8), which does not prevent the generality of my further analysis.

Table 7-8 – Demographic factors of user groups vs two modes of questionnaires

Survey Group	**% of respondents above 35 years of age**		**Academically (degree) or professionally qualified %**		**% of respondents more than five years of experience**	
	Paper-based	Online	Paper-based	Online	Paper-based	Online
Advisors	55	35	20	75	64	45
Investors	47	40	5	58	4	45
Lenders	12	20	25	69	27	21

7.3.4 Reliability and validity of the questionnaire

The reliability assessment of a questionnaire is part of the rigorous evaluation of a new questionnaire developed for a particular study purpose. It is accepted that the questions in a questionnaire should be constructed in a way to differentiate among respondents such that respondents who think correspondingly about a question select similar responses, whereas those who think contrarily choose diverse responses (Burns et al., 2008; Passmore et al., 2002). Psychologists consider three types of consistency: over time (test-retest reliability), across items (internal consistency), and between researchers (inter-rater reliability) (Burns et al., 2008). After finalising the survey questionnaire, to assess whether the same question posed to the same individuals yield consistent results at different times, the test-retest reliability test was conducted using three respondents (one investor, one advisor and one lender) from Sri Lanka in January 2019. The second round of the questionnaires was sent two weeks later to the same three respondents. There were no significant differences between the individual responses for all three participants on the two occasions.

A separate test-retest reliability study was conducted with 8 participants from Sri Lanka to ensure the consistency of response for online and paper-based formats. Three academics and five professional accountants were given the paper-based survey to provide their responses by completing the survey, and after 10 to 15 days, the online version was sent, and responses obtained. There were no significant differences in the responses. However, minor wording deficiencies were identified between online and paper versions and rectified.

I also used Cronbach's alpha to examine the internal consistency of multi-item questions in the survey instrument (applications thereof in, e.g., Al-Ajmi, 2009; Botosan, 1997). This helps to determine the reliability of a scale to measure what it intends to measure, and it shows the inter-relatedness between items and heterogeneous constructs. Cronbach's alpha takes a value between 0 and 1. One indicates a perfect correlation between the parts of the instrument, and 0 indicates no correlation between these parts. The literature suggests that 0.70 is an acceptable level, with the preferred level being above 0.80 (Botosan, 1997). The results are presented in Table 7-9 suggesting a relatively high amount of internal consistency of the responses generated for the multi-item questions.

Table 7-9 – Cronbach's alpha values for questions

Question No.	**Description**	**Cronbach's alpha**
8	Importance of sources of information	0.753
11	The usefulness of various sections of annual reports	0.925
13	The usefulness of QCs for investment and lending decisions	0.823
15	The usefulness of information for investment and lending decisions	0.978

The validity of the questionnaire explains the extent to which the scores from a measure represent the variable they are intended to measure. Face validity, whether the questionnaire appears to make sense (Bryman & Bell, 2015, p. 474), is the most subjective aspect of validity

testing. Face validity was improved by obtaining feedback from the participants through the pre-test and a pilot test, as explained above in this chapter and assessed whether the questionnaire measures what it intends to measure.

Content validity is "the extent to which the measurement device, in this case, the questions in the questionnaire, provides adequate coverage of the investigative questions" (Bryman & Bell, 2015, p. 450). This validity was ensured by i) obtaining the experts' (supervisors', other academics', professionals' in practice) views to develop the questionnaire to ensure that the questionnaire content accurately assessed all fundamental aspects, ii) including questions as well as supplementary and contextual information (especially in Section D in the questionnaire) based on the relevant literature.

Construct validity states "the extent to which a set of questions (known individually as scale items) actually measures the presence of the construct the researcher intended to measure" (Bryman & Bell, 2015, p. 450). Criterion validity is "concerned with the ability of the measures (questions) to make accurate predictions" (Bryman & Bell, 2015, p. 450). Construct validity and criterion validity in relation to the model of measuring FRQ through QCs will be discussed in detail in Chapter 8.

7.4 Profile of respondents

Several questions were included in Section A of the questionnaire to identify the demographic information of the prospective participants. Three questions on gender, age, and qualification were included to identify participants' backgrounds. A further question on participants' experience on investment, advising, or lending decisions were included to identify the participants' decision roles. Once the decision experience of participants was determined, the

next two questions were customised to examine the way they obtained their experience (i.e., about their job role) and the number of years of experience in the stated job role. Responses to those questions are discussed below to understand the participants' profile background information, decision experience (decision role), and job role.

7.4.1 Decision experience

The decision experience relates to the three groups of decision-scenarios: i) advising for investments decisions (advisors) on buying, selling, or holding debt and equity instruments, ii) investment decisions (investors) on buying, selling or holding debt and equity instruments by themselves, and iii) lending decisions (lenders) of granting loans and other trade credits to customers. I consider groups i) and ii) together under the umbrella of investment decisions, and group iii) as lending decisions. A separate question is included in the questionnaire to identify the decision experience of respondents, and Table 7-10 provides summary statistics.

Table 7-10 – Decision experience of respondents (N=449)

Respondents group	**No.**	**%**	**Decision type**	**%**	**No.**	**%**
Advisors	88	19.6	Investment decision	52.3	88	37.4
Investors	147	32.7			147	62.6
Lenders	214	47.7	Lending decisions	47.7		
Total	449	100.0		100.0	235	100.0

In total, 449 responses were received from 88 advisors, 147 investors, and 214 lenders. To address the survey objectives, some of the response results will be analysed into individual groups, while some will be analysed into two groups as investment decisions and lending decisions. Thus, when only two groups are considered, 37% of responses represent advisors, and 63% represent investors. The total number of respondents for investment decisions

(investors and advisors) amounts to 235 responses (52.3%), and 214 (47.7%) to lending decisions. This shows a balanced sample of respondents for investment and lending decisions.

7.4.2 Gender and age group

The age and gender range of the participants provide a reasonable understanding of the maturity and representativeness of respondents. Further, understanding the age range and gender provides a foundation to understand in which context to interpret the results of the survey. The survey is designed to explore how annual reports are used, and the information is useful for investment and lending decisions in Sri Lanka. The Labour Force Participation Rate (LFPR) in Sri Lanka shows more participation by males than females,[40] leading to an expectation that more males will be making investment and lending decisions. The distribution of respondents in terms of gender in different age groups is given in Table 7-11.

Table 7-11 – Distribution of age (N=449) according to the gender

		20-24	**25-34**	**35-44**	**45-54**	**<55**	**Total**
Gender	Female	25	120	24	9	3	181
	Male	16	149	56	20	27	268
Total		41	269	80	29	30	449

The above table shows that the majority of respondents (60%) are males. Sixty percent of both males and females are in the age group of 25-34. Only 9% of respondents are less than 25 years of age who can be assumed to have less experience.

[40] According to the census and statistics department's 2018 data, Sri Lankan LFPR among male and females is 70 :30 (http://www.statistics.gov.lk/samplesurvey/2018Q3report.pdf)

7.4.3 Qualification

A further contextual variable is about their qualification. This question relates to an expectation that the respondents have i) some degree of technical understanding of the content and terminologies in annual reports, and ii) an adequate level of experience in making investment or lending decisions. Table 7-12 summarises the qualification of respondents in terms of different decision groups.

Table 7-12 – Qualifications of respondents (N=449)

Qualification	**Decision role**			**Total**
	Advisors	**Investors**	**Lenders**	
Advanced Level	34	81	125	240
Diploma	36	35	70	141
Bachelor's degree	44	83	103	230
Master's degree	22	32	33	87
Any professional exam partly completed	19	32	44	95
CFA	10	10	2	22
CA	23	56	29	108
Other full professional membership	7	26	16	49
Banking qualifications	7	14	87	108

According to Table 7-12, 51% of respondents (230) have a bachelor's degree, and 108 CA's responded to having experience in investment, lending, and advising clients. More lenders (48%) are graduates and possess banking-related qualifications. These are likely to be accounting graduates who work in banks as loan officers. Fifty percent of investors and 72% of advisors are graduates and professionally qualified individuals. Educational qualifications are further analysed in Table 7-13.

Table 7-13 – Academic and professional qualifications of respondents

	Diploma OR Masters		**Full professional memberships (e.g., CA, CFA, banking)**		**Academic qualification OR Professional membership**		**Any tertiary qualification OR professional qualification (full or part)**		**Academic degree/masters AND full professional qualification**	
Advisors (N=88)	77	88%	40	45%	81	92%	88	100%	30	34%
Investors (N=147)	101	69%	98	67%	130	88%	147	100%	62	42%
Lenders (N=214)	132	62%	115	54%	165	77%	214	100%	65	30%

According to Table 7-13, 92% of advisors, 88% of investors and 77% of lenders have either an academic or professional qualification or both. All respondents possess either some tertiary level academic qualification or a full or partly completed professional qualification. Nearly one-third of respondents have both a degree and a professional membership. A high level of academic and professional level qualification was not entirely unexpected, except for the investors, since there is no minimum educational qualification for investors. The qualifications of the respondents allow me to assume that all other responses to the question in the questionnaire are well-informed decisions with fewer errors in variables (measures of FRQ). In other words, I can draw useful inferences from the analysis that is based on the survey responses.

7.4.4 The job role of respondents

Based on the experience of respondents in advising, investment or lending decisions, respondents were asked to indicate in what job role they obtained the stated decision experience. The results are summarised in Table 7-14.

Table 7-14 – Job role of participants

Job role	Advisors	Investors	Advisors and investors	Lenders	Total
Financial analysts	10	4	14	0	14
Financial consultants	14	3	17	0	17
Individual investors	0	57	57	0	57
Stockbrokers	22	9	31	0	31
Bank loan officers	0	0	0	171	171
Partners in an audit firm	15	8	23	0	23
Accountants in companies	8	27	35	17	52
Employees in companies	4	6	10	8	18
Managers in companies	15	33	48	18	66
Total *(N)*	88	147	235	214	449

In addition to the level of the educational background, respondents obtained related work experience in various job roles. One decision role may involve many types of jobs. For example, investment decisions are made by individuals who work under different job titles. More investment decision experience is represented by stockbrokers/financial analysts/consultants (26%), individual investors (24%), and managers in companies (25%). More advisors (69%) represent financial analysts, consultants, stockbrokers, and audit firm partners. Individuals who have investment experience in debt or equity instruments work in different job roles having different work experiences. However, in the sample, more investors work as individual investors by profession (38%) which is mainly because of the inclusion of CSE floor investors from different CSE centres, and the customers who visit stockbroking companies. Also, it is noticeable that individuals (67%) who work as accountants, as well as 72% of managers in companies, are involved in investment decision about debt and equity. The other managers have experience in lending decisions. In the lenders' category, most (80%) lending decisions are made by bank loan officers.

Table 7-14 provides evidence to show the difference between decision role/decision experience and the job role/working experience of respondents. As explained in the selection of the sample (Section 7.3.2), accountants are involved in either investment decisions or lending decisions. A manager or an executive in a company may be involved in either type of decision. Therefore, the usefulness of annual reports is assessed in terms of the *real decision experience* of the individuals, and not based on the job *title*, as so many contributions in the literature have done. Also, the above qualification analysis (Table 7-12) shows that decisions such as investment or lending are not purely related to the qualification that the individuals possess. For example, CAs or CFAs can have experience in either investment or lending decisions: 73% of CAs have experience in investment decisions while the rest have experience in lending decisions. Therefore, it is understandable that using a group of professionals as a sample for investment decisions or advisory decisions is problematic.

7.4.5 Years of experience

The years of experience of respondents in relation to the selected decision-role provides evidence of as reliability in their responses. Results are summarized in Table 7-15.

Table 7-15 – Length of selected decision experience (N=449)

	Less than five years	**5 to 10 years**	**More than ten years**	**Average length (years)**
Advisors	32%	37%	32%	9
Investors	41%	30%	29%	8
Lenders	59%	29%	12%	5

Advisors have more experience than lenders in the sample. Nearly 60% of investor and advisors have more than five years of experience, while only 40% of lenders have more than five years of experience. Overall, sample respondents have an average of eight years of experience in investment decisions and five years of experience in lending decisions.

7.5 Analysis of the survey results

This section discusses the survey responses from Sections B, C and D of the questionnaire in light of the sub-research questions (SRQs) stated in Section 4.2, 4.3 and 4.4. The discussion is organised into three categories:

1) The usefulness of annual reports for investment and lending decisions. Using Section B of the questionnaire, I address SRQ2.1 to SRQ2.6 in Sections 7.5.1 to 7.5.5, respectively.
2) The usefulness of QCs and the impact of IFRS on QCs and FRQ. Using Section C of the questionnaire, I address SRQ2.7 and SRQ2.8 in Sections 7.5.6 and 7.5.7.
3) The usefulness of information items (identified in Chapter 3) that are used to assess QCs in measuring FRQ. Using Section D of the questionnaire in Section 7.5.8, I address the RQ2, concerning the step 2 of the thesis process discussed in Section 1.4.

For reasons of convenience, I restate the SRQs in each section. I also point out that the analysis is performed on responses that are measured on an ordinal scale. When calculating central tendencies on ordinal scales, the more appropriate metric is the median rather than the mean. However, the literature generally uses the mean instead of the median, which I follow here. While the literature that reports on survey results hardly ever provides a justification, the best possible I can provide is that the median on a five-point Likert scale will i) often be the same number across different questions which will not allow to trace out minor differences in respondents' opinions, and ii) not allow the meaningful ranking of questions.

7.5.1 The frequency of using annual reports

SRQ2.1: How often are annual reports used for investment decisions and lending decisions?

This question examines how frequently users use annual reports with regard to their investment and lending decisions. In Table 7-16, 2nd column, I repeat the questions posed to investors, advisors and lenders. Note that the questions to the three decision types are different and tailored to the particular decision-making. Respondents were asked to state the frequency of using annual reports for the given purposes using a scale of (0) – 'never applicable', (1) – 'rarely', (2) – 'sometimes', (3) – 'frequently', (4) – 'always' and (5) – 'not applicable'. Table 7-16 summarizes the 'responses'.

Table 7-16 – Frequency of using annual reports by user groups with respect to decision roles

	Responses %	**0** %	**1** %	**2** %	**3** %	**4** %	**5** %	**Mean***	**SD**
Advisors (N=88)	To buy, sell or hold equity or debt instruments	1.1	18.1	25.0	25.0	29.8	1.0	2.95	1.222
	To advise clients on trading equity or debt instruments	0	9.1	20.4	30.7	39.8	0	3.01	.988
Investors (N=147)	To buy, sell or hold equity or debt instruments	3.4	6.8	26.5	27.9	35.4	0	2.75	1.088
	To advise clients on trading equity or debt instruments	1.5	10.2	28.6	16.3	14.3	29.5	1.76	1.421
Lenders (N=214)	To grant loans to customers	4.7	8.8	24.8	27.1	34.6	0	2.78	1.152
	Assess the ability to repay loans	3.2	9.8	18.2	22.9	45.9	0	2.98	1.155
	Provide trade credit to customers	3.7	7.9	23.4	30.4	34.6	0	2.84	1.102
(0) – never; (1) – rarely; (2) – sometimes; (3) – frequently; (4) – always; (5) not applicable *Mean does not include responses (5) – not applicable									

Apart from one advisor respondent, all answered both questions posed. Forming a 'more frequent' user group that includes responses '(3) – frequently' and '(4) – always', Advisors used annual reports in 70.5% of cases to advise clients on trading equity and debt

instruments, and in 54.8% of cases to decide about buying, selling or holding equity or debt instruments. The average for both questions is close to 3.0 (frequently). Overall, on average, 62.5% of advisors use annual reports more frequently for any of the two decisions given above.

Many investor respondents (29.5%)[41] indicated that they are not involved in advising clients on trading equity or debt instruments, but all of them are active traders. More investors (63% for 'frequently' and 'always') use annual reports to buy, sell, or hold equity or debt instruments, and fewer investors (31% for 'frequently' and 'always') use them for advising clients on buy, sell or hold equity or debt instruments. The average response is 2.75 (frequently) for the decision to buy, sell, or hold equity or debt instruments by the individuals who have investment experience.

All lender respondents are involved in all three decision scenarios put to them. Across the three questions, a rather constant 65% answered 'frequently' and 'always' for the use of annual reports. Clearly, annual reports are used frequently, which is further supported by the mean values from three lending decisions which are close to 3.0.

In terms of analysing investment vs lending decisions, 66% of respondents stated that annual reports are used for investment decisions 'frequently' and 'always' with respect to their main decisions, i.e., advisors for advising clients on trading equity or debt instruments and investors for buying, selling or holding equity or debt instruments. An average of 65% of respondents stated that annual reports are used for lending decisions 'frequently' and 'always'. Less than 5% of investment and lending decision-makers did not use annual reports for their decision-making. Only one-third of respondents stated that they used annual reports always for

[41] It is debatable whether or not to add the 1.5% of investor respondents who never advise clients.

their decisions. Similar to my findings Biswas & Bala (2016) also found that over one-third of investors read annual reports 'regularly' in Bangladesh. Accordingly, the response statistics show that annual reports are used for investment and lending decisions 'frequently' in Sri Lanka. One can thus expect that the frequent use of annual reports by survey respondents yields familiarity with annual reports in making decisions. This enhances the reliability and the quality of survey response data, in particular, when moving to the next survey questions that relate to the use of annual reports.

7.5.2 Importance of various sources of information

SRQ2.2: Is there a statistically significant difference between investors and lenders in how important they perceive various sources of information to be for their decision-making?

Annual reports are considered a useful source of information about the performance of the company because of the wide coverage of information they provide, and their availability (Al-Ajmi, 2009; Hooks et al., 2002; Mirshekary & Saudagaran, 2005; Stainbank & Peebles, 2006). Other than the annual reports, the literature (e.g., Al-Ajmi, 2009; De Zoysa & Rudkin, 2010; Ehalaiye et al., 2018; Ho & Wong, 2001; Naser et al., 2003; Stainbank & Peebles, 2006) suggests that there are other sources of information which decision-makers can use to facilitate their investment and lending decisions: e.g., stockbrokers' advice, internet, newspapers and stock market publications. Based on this, the discussion in Section 4.2 and the IASB producing one set of accounting standards, I formulate the following Null hypothesis:

H_1 – There is no statistically significant difference between investors and lenders in how important they perceive various sources of information to be for their decision-making.

Table 7-17, Column 1, summarises the possible sources of information identified from the literature. The respondents were asked to rank these based on the perceived importance:

"How important are the various sources of information for you in forming an opinion that supports investment [or lending, or advisory] decisions?" (cf. Appendix 1 – survey questionnaire – Question 8). The answers are measured on a scale of (0) – 'not important', (1) – 'somewhat important', (2) – 'important', (3) – 'very important', (4) – 'extremely important' for each of the sources given.

Table 7-17 – Importance of information sources for different decision-makers

	Not important (0)			**Somewhat important (1)**			**Important (2)**			**Very important (3)**			**Extremely important (4)**		
Panel A															
Sources	Advisory (%)	Investment (%)	Lending (%)	Advisory (%)	Investment (%)	Lending (%)	Advisory (%)	Investment (%)	Lending (%)	Advisory (%)	Investment (%)	Lending (%)	Advisory (%)	Investment (%)	Lending (%)
(a) Advice from a friend	7	9	10	42	35	46	27	42	33	18	12	9	6	1	2
(b) Communication with company management	5	6	1	6	14	6	26	29	23	42	36	49	22	15	21
(c) Company annual reports	0	1	2	5	7	8	23	37	26	40	33	40	33	21	23
(d) Information provided on the internet	1	3	5	15	21	20	47	36	50	23	31	23	15	9	3
(e) Newspaper articles and other media	1	1	2	17	21	23	41	37	42	30	35	29	11	5	3
(f) Personal knowledge about the company	1	1	0	7	7	8	30	29	30	38	46	42	25	18	18
(g) Stock market publications	0	2	1	9	4	10	22	27	39	40	49	36	30	18	13
(h) Tips and rumours	9	8	11	37	31	32	27	25	36	18	23	17	8	12	4
Panel B															
Ranking based accumulated percentage of responses for important (2), very important (3) and extremely important (4)															
Sources	(a)		(b)		(c)		(d)		(e)		(f)		(g)		(h)
Advisory decision (Rank)	51% (8)		90% (4)		96% (**1**)		85% (5)		82% (6)		93% (**2**)		92% (**3**)		54% (7)
Investment decision (Rank)	55% (8)		80% (4)		91% (**3**)		76% (6)		77% (5)		93% (**2**)		94% (**1**)		60% (7)
Lending decision (Rank)	44% (8)		93% (**1**)		89% (**3**)		76% (5)		74% (6)		90% (**2**)		88% (4)		57% (7)

The 'company annual report' is the main source of information relied on by advisors when advising on how to invest in equity or debt instruments. Investors depend on 'stock market publications' and lenders on 'communication with the company management' as their

main source of information. Based on the count data shown in Table 7-17 – *Panel A*, I calculate (cf. Table 7-18) the mean responses. Advisors selected 'personal knowledge of the company' and 'stock market publication' as the second and third most important sources of information for their advisory decisions. 'Personal knowledge of the company' and 'annual reports' were selected by investors as well as lenders as the second and third most important sources of information. Both the frequency (cf. Table 7-17 – *Panel B*) and mean average analysis (cf. Table 7-18) show that 'annual reports', 'stock market publications' and 'personal knowledge of the company' are the three most important sources of information for investors and advisors, but in different ranking order. These provide evidence that both groups use the same information for investment decisions. For lenders, however, 'communication with company management' is the most important source for their decision-making. Further, all three respondent groups identified that 'tips and rumours' and 'advice from friends' are the least important sources of information. The internet as a source of information for decision-making was selected by the advisors in fifth position and investors and lenders in the sixth position.

Table 7-18 – Mean responses for sources of information by decision roles and their ranking

Decision roles	**Advice from a friend**	**Company annual reports**		**Newspaper articles and other media**			**Stock market publications**		**Advisory services of accounting firms***	
		Communication with company management		**Information provided on the internet**		**Personal knowledge about the company**		**Tips and rumours**	**Stockbroker advise***	
Advisors (SD)	1.74 (1.023)	2.70 (1.019)	3.01 (.864)	2.35 (.947)	2.33 (.931)	2.78 (.940)	2.91 (.918)	1.78 (1.098)	-	-
Investors (SD)	1.62 (.863)	2.39 (1.095)	2.67 (.917)	2.22 (.971)	2.24 (.871)	2.72 (.866)	2.75 (.882)	2.00 (1.170)	2.13 (.947)	2.18 (.863)
Investors and Advisors -*investment decisions* (SD)	1.66 (.926)	2.51 (1.076)	2.80 (.911)	2.27 (.962)	2.27 (.893)	2.74 (.893)	2.81 (.897)	1.92 (1.146)	2.25 (.985)	2.10 (1.006)
Rank	10	4	2	5	5	3	1	9	7	8
Lenders -*lending decisions* (SD)	1.47 (.865)	2.83 (.874)	2.74 (.968)	2.06 (.785)	2.09 (.853)	2.71 (.818)	2.50 (.894)	1.71 (.997)	1.77 (.949)	1.98 (.895)
Rank	10	1	2	6	5	3	4	9	8	7
*These two questions were not asked from advisors										

Combining advisors and investors into a single group of investment decision-makers, Table 7-18 shows that the 'stock market publication' is the main source of information for investment decisions followed by 'company annual report' and 'personal knowledge', respectively. 'advice from friends' and 'tips' remain the least important sources of information for the two-group comparison, investment and lending decisions.

The Kruskal-Wallis tests for statistical differences in two or more groups and the Null hypothesis states that the medians of all groups are equal. I thus used this test to see whether there is any significant difference between the three decision groups in terms of the importance of using different sources of information. The results show that there is a significant difference (at 5%) of the results among the three groups in 4 out of 8 sources. They are 'communication with the company', 'annual reports', 'information provided by the internet', and 'stock market publication' (cf. Table 7-19). Therefore, it can be concluded that users' perception regarding the importance of those four sources of information varied significantly among the three decision groups.

Table 7-19 – Difference in the importance of information items between three decision roles (advisors, investors, lenders) assessed with the Kruskal-Wallis test

	Advice from a friend	**Communication with company management**	**Company annual reports**	**Information provided on the internet**	**Newspaper articles and other media**	**Personal knowledge about the company**	**Stock market publications**	**Tips and rumours**
Chi-Square	5.362	14.426	8.170	6.971	4.354	.519	16.134	4.676
Asymp. Sig.	.068	.001**	.017*	.031*	.113	.771	.000**	.096
Level of significance: *: significant at 5%; **: significant at 1%								

Based on the results in Table 7-19, I have performed pair-wise comparisons between the three groups for the four information sources and assessed the strength of those differences using the Mann-Whitney-U test (cf. Table 7-20). According to the test results, the importance

of ‘communication with management’ and ‘annual reports’ is statistically different for investors and advisors. Except for ‘communication with the company’, the other three sources record a statistically significant difference in the responses between advisors and lenders. ‘Communication with management’ and ‘stock market publications’ show a significant difference between investors and lenders.

Table 7-20 – Mann-Whitney U test results for each pair of groups

		Communication with company management	**Company annual reports**	**Information provided on the internet**	**Stock market publications**
Advisors vs Investors	Z	-2.173	-2.843	-.741	-1.353
	Asymp. Sig. (2-tailed)	.030*	.004*	.459	.176
Advisors vs Lenders	Z	-.788	-2.119	-2.440	-3.554
	Asymp. Sig. (2-tailed)	.431	.034*	.015*	.000**
Investors vs Lenders	Z	-3.780	-1.069	-1.855	-2.881
	Asymp. Sig. (2-tailed)	.000**	.285	.064	.004*
Level of significance: *: significant at 5%; **: significant at 1%					

I also used the Mann-Whitney-U test to assess hypothesis H_1 with respect to two groups, the lenders and the group where advisors and investors are merged into investment decision-makers. The results are summarised in Table 7-21 and show that there is a significant difference (at 5% and 1%) in 6 out of 10 sources of information.

Table 7-21 – Mann-Whitney U test results for investment and lending decisions for different sources of information

	Advice from a friend		**Company annual reports**	**Newspaper articles and other media**			**Stock market publications**		**dvisory services of accounting firms**	
		Communication with company management		**Information provided on the internet**		**Personal knowledge about the company**		**Tips and rumours**	**Stockbroker advise**	
Z	-2.282	-3.071	-.302	-2.526	-2.001	-.466	-3.828	-1.621	-4.656	-4.656
Asymp. Sig. (2-tailed)	.023*	.002**	.763	.012**	.045**	.641	.000**	.105	.000**	.000**
Level of significance: *: significant at 5%; **: significant at 1%										

Except for the responses for annual reports, personal knowledge, tips and rumours, and advisory services from accounting firms, H_1 was rejected with regard to these other six sources of information which do show statistically significant responses for investment and lending decisions. Importantly my results show that there is no statistically significant difference in the importance of using 'annual reports' between investment and lending decisions. In summary, the annual report is an important source for investment as well as lending decisions in Sri Lanka, though it is not the prime source of information for lending decisions.

7.5.3 Usefulness and adequacy of the information

This section considers the usefulness (i.e., able to be used for decision-making) and adequacy (i.e., sufficiency or enough for decision-making) of information for investment and lending decisions, and focuses on SRQ 2.3 and 2.4. It further examines whether there is a significant difference between investment and lending decisions in terms of usefulness and adequacy of annual reports. I will discuss these in turn.

SRQ2.3: Is there a statistically significant difference between investors and lenders in how they perceive the usefulness of the information in annual reports to be for their decision-making?

The usefulness of the information contained in annual reports for investment or lending decisions (cf. Appendix 1 – Survey questionnaire – Section B, Question 9) was measured on the following scale: (0) – 'not useful', (1) – 'somewhat useful', (2) – 'useful', (3) – 'very useful' and (4) – 'extremely useful'. The responses are summarised in Table 7-22.

Table 7-22 – Frequency of responses by different decision roles for the usefulness of the information contained in annual reports

	Advisors	**%**	**Investors**	**%**	**Lenders**	**%**
Not useful (0)	0	0	0	0	1	.5
Somewhat useful (1)	4	4.5	15	10.2	26	12.3
Useful (2)	30	34.0	66	44.9	77	35.9
Very useful (3)	38	43.2	42	28.6	77	35.9
Extremely useful (4)	16	18.3	24	16.3	33	15.4
Total	88	100	147	100	214	100
Mean (SD)	2.75 (.806)		2.51 (.886)		2.57 (.921)	
	Investment decisions				Lending decisions	
Mean (SD)	2.60 (.863)				2.54 (.912)	
Median	3				3	

Table 7-22 shows that 62% in the advisory group responded that annual reports were 'very useful' and 'extremely useful', which is a higher proportion than investors (45%) and lenders (51%). This provides evidence that all three groups assume that information contained in annual reports is a useful source of information for advising, investing, and lending decisions. When considering both advisors and investors as investment decision-makers, 51% responded with 'very useful' and 'extremely useful'. Statistics show that the percentage of responses from all the respondents for 'not useful' or 'somewhat useful' varied from 0% to 12%. The means for all three groups indicates that the information contained in annual reports is considered to approach 'very useful', most strongly so for advisors (2.75), followed by lenders (2.57), and investors (2.51). Making the two-group comparison between investment decisions and lending decisions, the same conclusion can be drawn that the overall usefulness of annual report information is between 'useful' and 'very useful'.

To examine whether there would be a significant difference between investment and lending decision with regard to respondents' opinion about the usefulness of the information available in annual reports, I test the following hypothesis:

H_2 – There is no statistically significant difference between investors and lenders in how they perceive the usefulness of the information in annual reports to be for their decision-making.

First, the Kruskal Wallis test was performed to examine whether there is a significant difference in the responses for the usefulness of annual reports among the three decision roles. The statistic (p = 0.87, X^2 = 4.892) shows that there is no significant difference (α=5%) among the three groups. Then, I examined the responses with the Mann-Whitney U test to test H_2 using two groups, investment and lending decisions. Test statistics (p = *.586,* Z= -0.546*)* reveal that H_2 is not rejected. Thus, based on Sri Lankan respondents' perception regarding the usefulness of annual reports, I do not find a statistically significant difference between investment decisions and lending decisions.

Next, I discuss 'adequacy':

SRQ2.4: Is there a statistically significant difference between investors and lenders in how they perceive the adequacy of information in annual reports to be for their decision-making?

To examine the adequacy of annual reports for investment and lending decisions, respondents were asked to respond on a scale of (0) – 'not adequate', (1) – 'somewhat adequate', (2) – 'adequate', (3) – 'very much adequate' and (4) – 'extremely adequate'. (cf. Appendix 1 – Survey Questionnaire – Section B, Question 10). The response summary is given in Table 7-23.

Table 7-23 – Frequency of responses by different decision roles for the adequacy of the information contained in annual reports

	Advisors	**%**	**Investors**	**%**	**Lenders**	**%**
Not adequate (0)	1	1.1	38	25.9	59	27.6
Somewhat adequate (1)	23	26.2	7	4.7	0	0
Adequate (2)	38	43.2	74	50.3	89	41.6
Very much adequate (3)	22	25.0	25	17.1	55	25.7
Extremely adequate (4)	4	4.5	3	2.0	11	5.1
Total	88	100	147	100	214	100
Mean (SD)	2.06 (.862)		1.65 (1.103)		1.81(1.239)	
	Investment decisions				Lending decisions	
Mean (SD)	1.80 (1.037)				1.81 (1.239)	
Median	2				2	

According to Table 7-23, all three groups indicated that annual reports provide 'adequate' information to make their decisions with advisors recording 43% of responses in that category (mean=2.06), investors 50% (mean=1.65) and lenders 42% (mean=1.81), respectively. On the other hand, 29% of advisors responded that annual reports are 'very much adequate' or 'extremely adequate' with investors at 19% and lenders at 31%, respectively. Overall, the strength of the responses is lower than their responses on the usefulness of annual reports. Overall, 26% of investors and 28% of lenders stated that annual reports were 'not adequate' to make their decisions, while only 1% of advisors stated annual reports were not adequate.

That fact that there are differences which the three decision roles ascribe to adequacy and usefulness reflects the earlier finding in relation to the frequency (Section 7.5.1) and importance (Section 7.5.2) of annual reports. According to the numbers, advisors are the most frequent users (compared to the other two groups) of annual reports, and they are the only group who ranked annual reports as their first source of information. When considering both advisors and investors as investment decision-makers, 23% responded 'very much adequate'

and ‘extremely adequate’. On the other hand, 29% of investment decision-makers stated that annual report information was ‘not adequate’ or ‘somewhat adequate’. Supporting this result, both mean responses are closer to 1.8, showing that responses are less than ‘adequate’ for investment and lending decisions.

The following hypothesis was formed to examine whether there would be a statistically significant difference between investments and lending decision with regard to respondents’ opinion on the adequacy of information available in annual reports:

H_3 – There is no statistically significant difference between investors and lenders in how they perceive the adequacy of information in annual reports to be for their decision-making.

First, the Kruskal Wallis test was performed to examine whether there is a significant difference in the responses with regard to the adequacy of the information contained in annual reports among the three decision-makers. The test statistic *(p* = 0.062, X^2 = 5.574) suggests that there is no significant difference among the three groups at a 5% significance level. Further, the responses were examined with the Mann-Whitney U statistics to test H_3 using investment and lending decisions as two groups. The test statistic (*p =0. 475*, Z= -0.714*)* reveals that H_3 is not rejected, and I conclude that there is no statistically significant difference in the responses between investment decisions and lending decisions with regard to the adequacy of the information contained in annual reports.

Table 7-24 – Comparison between importance, usefulness and adequacy of annual report information for investment and lending decisions

	Investment decisions		**Lending decisions**	
	Mean	Average responses	Mean	Average responses
Importance* (significance or value)	2.80	94%*	2.74	89%*
Usefulness ** (able to be used for decision-making)	2.60	92%**	2.54	87%**
Adequacy *** (sufficient or enough to make decision)	1.80	71%***	1.81	72%***
* Total responses are '2', '3'and '4' on the 5-point Likert scales. The respective wordings are; 'Important', 'very important' and 'extremely important' ** Average response for 'useful' (2), very useful' (3) and 'extremely useful' (4) ***Average response for 'adequate'(2), 'very much adequate'(3), and 'extremely adequate'(4)				

Finally, when the importance (great significance or value), usefulness (able to be used for decision-making) and adequacy (sufficient or enough to decide) of annual report information are compared between investment and lending decisions, the annual report information is more important but less useful and less adequate to make investment and lending decisions (cf. Table 7-24); the mean response for importance is close to 3 ('very important') for both the investment and lending decision; the mean response for the usefulness of annual report information is just above 2.5 (close to 'very useful') for both the investment and lending decision, and the mean response for the adequacy of annual reports is below 2.0 ('adequate') for both the investment and lending decisions. This result of a decrease from importance to usefulness to the adequacy of annual report information possibly arises because annual reports are not the only source of information for investment and lending decisions. The within-group comparison of the three concepts (importance, usefulness, adequacy) shows that advisors consider annual reports as more important, more useful, and more adequate than do investors and lenders.

7.5.4 The usefulness of various sections of annual reports

Even though the financial statements are an integral part of annual reports, there are several other mandatory and voluntary reports that are attached to an annual report. Quantitative and qualitative information that may be useful to make investment and lending decisions are presented in those different sections in the annual reports. Studies (e.g., Al-Ajmi, 2009; Alattar & Al-Khater, 2008; De Zoysa & Rudkin, 2010; Stainbank & Peebles, 2006) reported that the usefulness of those sections might vary significantly among different user groups. Therefore, I examined:

SRQ2.5: Is there a statistically significant difference between investors and lenders in how they perceive the usefulness of various sections in annual reports to be for their decision-making?

I test this question with the following Null hypothesis:

H_4 – There is no statistically significant difference between investors and lenders in how they perceive the usefulness of various sections in annual reports to be for their decision-making

To test H_4, I gather information from respondents with respect to their perceived usefulness on 15 different sections that are frequently included in annual reports (cf. Appendix 1 Survey Questionnaire – Section B, Question 11). Respondents were asked to indicate the perceived usefulness on the scale of (0) – 'not useful', (1) – 'somewhat useful', (2) – 'useful', (3) – 'very useful', and (4) – 'extremely useful'. A summary of responses is given in Table 7-25.

Table 7-25 – Difference in the usefulness of various sections in annual reports among three groups and Kruskal Wallis test results

Frequency of responses	Kruskal Wallis test		Mean		0 %	1 %	2 %	3 %	4 %
	X2	*p*							
Balance sheet/ statement of financial position	1.07	0.59	3.07	Ad	0	4	20	42	34
			3.07	In	1	2	23	38	36
			3.15	Le	0	2	21	37	40
Profit and loss account/income statement	2.40	0.30	3.17	Ad	1	1	15	45	38
			3.07	In	1	2	22	41	34
			3.20	Le	0	1	17	41	40
Cash flow statement	7.19	.028*	3.15	Ad	0	1	20	41	38
			3.05	In	1	5	19	42	34
			3.29	Le	0	2	14	37	47
Statements of changes in equity	6.27	.043*	2.89	Ad	1	7	24	39	30
			2.63	In	1	9	34	37	19
			2.85	Le	0	5	28	44	23
Notes to financial statements	3.53	0.17	3.08	Ad	0	5	19	40	36
			2.87	In	1	6	24	43	26
			2.89	Le	0	5	27	40	28
Accounting policies	4.76	0.09	2.63	Ad	1	12	32	32	23
			2.35	In	1	18	37	33	11
			2.51	Le	1	15	32	34	18
Statement of other comprehensive income	8.06	.018*	2.72	Ad	1	8	28	44	19
			2.42	In	1	14	37	37	11
			2.68	Le	0	7	36	35	21
Auditors' report	4.60	0.10	2.99	Ad	0	6	25	34	35
			2.42	In	0	12	25	35	28
			3.01	Le	0	5	26	30	39
Chairman's report/directors' report	10.77	.005*	2.50	Ad	0	17	33	33	17
			2.80	In	2	22	41	27	8
			2.07	Le	4	25	38	25	8
Management discussion and analysis	0.87	0.65	2.55	Ad	1	9	41	32	17
			2.18	In	1	14	38	34	13
			2.44	Le	0	18	36	29	17
Corporate governance report/information	5.57	0.06	2.48	Ad	0	18	33	32	17
			2.44	In	1	20	40	29	10
			2.17	Le	4	25	35	23	13
Social responsibility report/ information	6.08	.048*	2.13	Ad	6	23	36	24	11
			2.24	In	5	31	36	22	6
			1.79	Le	12	32	29	21	6
Segmental information	31.70	.000**	2.38	Ad	1	13	44	32	10
			1.93	In	1	14	31	36	18
			1.99	Le	5	29	37	21	8
Statistical summary	9.43	.009*	2.56	Ad	3	15	22	43	17
			2.68	In	1	8	37	31	23
			2.36	Le	2	16	39	29	14
Sustainability report	0.69	0.71	2.25	Ad	2	25	36	20	17
			2.19	In	4	24	35	24	13
			2.11	Le	7	22	35	25	11

(0) – not useful; (1) – somewhat useful; (2) – useful; (3) – very useful; (4) – extremely useful
Level of significance: *: significant at 5%; **: significant at 1%
(Ad – Advisors, In – Investors, Le – Lenders)

All three groups' accumulated responses for (2) – 'useful', (3) – 'very useful', and (4) – 'extremely useful' are above 64% for all the sections in annual reports except social responsibility information for lenders, i.e., 56%. Hence all the given sections of information are useful. However, the three main components of financial statements, namely balance sheet, income statement and cash flow statement record an above 95% response for (2) – 'useful', (3) – 'very useful', and (4) – 'extremely useful'. The 'income statement' was recognised by both the advisors (mean = 3.17 and 83% responses for 'very useful' and 'extremely useful') and investors (mean = 3.08 and 77% responses for 'very useful' and 'extremely useful') as the most useful for them. Lenders (mean = 3.29 and 84% responses for 'very useful' and 'extremely useful') selected 'cash flow statement' as the most useful section in an annual report followed by 'income statement' as their second priority. All three groups selected 'statement of financial position' as the third most useful section in the annual report. I thus conclude that financial statement components such as the income statement, cash flow statement, and statement of financial position are the most useful for all three parties.

Notes to the financial statements (by advisors) and audit report (by investors and lenders) were also considered as useful sections for making their decisions. Advisors (mean = 2.13 and 33% responses for 'very useful' and 'extremely useful') and lenders (mean = 1.79 and 27% responses for 'very useful' and 'extremely useful') identified the social responsibility information as the least useful information while investors (mean = 2.24 and 28% responses for 'very useful' and 'extremely useful') consider segmental information as least useful. The Kruskal Wallis test examines whether there is a statistically significant difference in the responses between the three groups (cf. Table 7-25): the statistic suggests that seven items show a significant difference in responses among the three groups. They are cash flow statement, statements of changes in equity, statement of other comprehensive income,

chairman's report/directors' report, social responsibility report/ information, segmental information, and statistical summary.

Table 7-26 – Ranking and difference between decision roles for the usefulness of various section in annual reports

	Mann-Whitney U test		**Rank comparison Investment vs Lending decision**			
			Investment decision		Lending decision	
	Z	Asymp. Sig. (2-tailed)	Mean	Rank	Mean	Rank
Statement of financial position	-1.033	.301	3.07	3	3.15	3
Profit and loss account/income statement	-1.169	.242	3.10	1	3.20	1
Cash flow statement	-2.607	.009**	3.09	2	3.29	2
Statements of changes in equity	-1.216	.224	2.73	6	2.85	6
Notes to financial statements	-.666	.506	2.95	4	2.91	5
Accounting policies	-.683	.494	2.45	11	2.51	8
Statement of other comprehensive income	-1.455	.146	2.53	7	2.68	7
Auditors' report	-1.631	.103	2.87	5	3.01	4
Chairman's report/directors' report	-2.300	.021*	2.30	14	2.07	13
Management discussion and analysis	-.532	.595	2.48	10	2.44	9
Corporate governance report/information	-1.711	.087	2.33	12	2.17	11
Social responsibility report/ information	-2.073	.038*	2.00	15	1.79	15
Segmental information	-5.425	.000**	2.50	9	1.99	14
Statistical summary	-3.023	.003**	2.63	8	2.36	10
Sustainability report	-.785	.432	2.21	13	2.11	12
Level of significance: **: significant at 5%; **: significant at 1%						

I used the Mann-Whitney U statistic to test H_4 using two groups, investment and lending decisions. The U test reveals that the ‘cash flow statement’, the ‘chairman's report/directors' report’, the ‘social responsibility report’, ‘segmental information’ and the ‘statistical summary’ are significantly different between investment and lending decisions. Therefore, H_4 is rejected in relation to those five items, and there are statistically significant differences in the responses between investment decisions and lending decisions regarding the usefulness of cash flow

statement, chairman's report/directors' report, social responsibility report/information, segmental information and statistical summary.

7.5.5 Factors that restrict the use of annual reports

The above survey results provide evidence that financial statements are the most useful source of information for investment and lending decisions in annual reports. However, both the preliminary discussion on the design of the survey with academic and professional members and the literature (e.g., Al-Ajmi, 2009; Alattar & Al-Khater, 2008; De Zoysa & Rudkin, 2010; Naser et al., 2003), suggest that many factors hinder the usefulness of annual reports to users. I thus ask:

SRQ2.6: Is there a statistically significant difference between investors and lenders in how they perceive the factors that restrict the use of annual reports?

To address SRQ2.6 the survey included a question with seven factors that may restrict the use of annual reports, and respondents were asked to select those applicable (cf. Appendix 1 Survey Questionnaire – Section B, Question 12). In relation to SRQ2.6, the following Null hypothesis was formed:

H_5 – There is no significant difference between investors and lenders in how they perceive the factors that restrict the use of annual reports.

Table 7-27 shows the frequency of responses given by the three different groups. The responses are fairly evenly distributed across all seven factors with a minimum of about 10% for any factor. 'Delay in publishing annual reports with respect to year-end' is the main problem

identified by all the three groups and has the highest number of responses, and 56% of respondents have identified it as a reason that restricts annual report usage. The second highest response is the 'lack of simplicity in the contents and presentation of information' with 44% of total responses. The third factor most frequently chosen is 'lack of adequate non-financial information', which was identified by 43% of total respondents. The last factor relates to the adequacy of information (Section 7.5.3) and seems to be one of the major problems in annual reports for investment and lending decisions.

Table 7-27 – Responses of decision roles for the factors that restrict the use of annual reports

Factors	**Advisors**	**Investors**	**Lenders**	**Total responses**
Access to annual reports	23	51	76	150
	9.7%	12.3%	12.3%	11.8%
Delay in publishing annual reports with respect to year-end	42	82	128	252
	17.6%	19.8%	20.8%	19.8%
Lack of adequate financial information	34	54	76	164
	14.3%	13.0%	12.3%	12.9%
Lack of adequate non-financial information	38	67	90	195
	16.0%	16.1%	14.6%	15.3%
Lack of reliability of financial information	33	39	75	147
	13.9%	9.4%	12.2%	11.6%
Lack of reliability of non-financial information	28	53	81	162
	11.8%	12.8%	13.1%	12.7%
Lack of simplicity in the contents and presentation of information	40	69	90	199
	16.8%	16.6%	14.6%	15.7%
Total responses	238	415	616	1269

A Kruskal Wallis test was performed to examine whether there is a significant difference in the responses among the three decision groups for each restriction factor. The test statistics (numerical results not reported) did not indicate any statistical difference at the 5%-level. I also made the two groups comparison for lending and investing decision-makers with the Mann-Whitney U statistics to test H_5. Test statistics (numerical results not reported) also indicate that H_5 is not rejected, i.e., there are no statistically significant differences in the

responses between the investment decisions and lending decisions with regard to the factors that restrict the use of annual reports.

7.5.6 Importance of various qualitative characteristics

The overall objective of this thesis is to measure the FRQ in terms of the QCs. Hence, the survey examined the perceived importance of QCs for investment and lending decisions (cf. Appendix 1 Survey Questionnaire – Section C, Question 13). Hence, I asked:

SRQ2.7: How important are the QCs for investment and lending decisions?

Respondents rated the QCs in terms of the importance in making their decisions on a scale of (0) – 'not important', (1) – 'somewhat important', (2) – 'important', (3) – 'very important', (4) – 'extremely important'. The responses are summarised in Table 7-28.

Table 7-28 – Frequency (%) of responses of three decision roles for the importance of QCs.

QCs	Decision roles	0 (%)	1 (%)	2 (%)	3 (%)	4 (%)
Relevance	Advisor	0	8	34	28	30
	Investors	0	5	35	35	24
	Lenders	0	2	37	35	26
Faithful representation	Advisor	1	3	32	30	34
	Investors	0	7	27	29	36
	Lenders	0	2	29	38	30
Comparability	Advisor	0	6	26	44	24
	Investors	1	3	28	40	28
	Lenders	0	6	28	39	27
Verifiability	Advisor	0	2	23	44	31
	Investors	2	3	33	37	24
	Lenders	0	2	25	47	27
Timeliness	Advisor	0	3	20	44	32
	Investors	1	3	22	42	32
	Lenders	0	3	30	34	33
Understandability	Advisor	0	0	26	35	39
	Investors	0	2	24	35	39
	Lenders	0	2	22	43	33
(0) – 'not important'; (1) – 'somewhat important'; (2) – 'important'; (3) – 'very important' and (4) – 'extremely important'						

According to Table 7-28, the accumulated response of more than 95% of all respondents stated that all the QCs are (2) – 'Important', (3) – 'Very important' and (4) – 'Extremely important'. A higher response rate (98%-99%) from all the three groups is given for understandability. The same pattern of responses is recorded on the ranking based on mean values. The mean values are close to 3 (advisors–3.13, investors–3.12 and lenders–3.07) for all three groups, which suggests that all QCs are important.

Table 7-29 – Ranking of QCs by decision roles based on mean and statistics relating to the difference between decision roles

		Relevance	**Faithful representation**	**Comparability**	**Verifiability**	**Timeliness**	**Understandability**
Panel A – Mean and standard deviation							
Advisors	Mean	2.80 (6)	2.92 (4)	2.86 (5)	3.03 (3)	3.05 (2)	3.13 (1)
	SD.	.961	.950	.847	.794	.815	.800
Investors	Mean	2.79 (5)	2.94 (3)	2.91 (4)	2.78 (6)	3.02 (2)	3.12 (1)
	SD.	.878	.967	.867	.925	.848	.840
Lenders	Mean	2.84 (5)	2.96 (4)	2.87 (6)	2.98 (2)	2.97 (3)	3.07 (1)
	SD.	.852	.830	.882	.769	.863	.802
Panel B – Kruskal Wallis Test (advisors n=88, investors n=147, and lenders n=214)							
Kruskal Wallis Test	Chi-Square	.256	.037	.223	5.357	.776	.524
	Asymp.Sig	.880	.982	.894	.069	.679	.769
Panel C – Investment vs Lending decision							
% of responses for (2) – 'important'; (3) – 'very important' and (4) – 'extremely important'							
Investment decision		93	94	95	96	97	99
Lending decision		98	98	94	98	97	98
Panel D– Ranking based on mean values							
Lending decision	Mean	2.84 (6)	2.96 (4)	2.87 (5)	2.98 (2)	2.97 (3)	3.07 (1)
	SD	.852	.830	.882	.769	.863	.802
Investment decision	Mean	2.79 (6)	2.93 (3)	2.89 (4)	2.88 (5)	3.03 (2)	3.12 (1)
	SD	.908	.958	.858	.885	.834	.823
Panel E– Mann-Whitney U test (investment decisions (n = 214) vs lending decisions (n = 235))							
Mann-Whitney U Test	Z	-.497	-.001	-.217	-1.077	-.866	-.723
	Asymp. Sig. (2 tailed)	.619	.999	.828	.281	.387	.470
(The ranking is given within brackets)							

The ranking of the QCs based on the mean response (cf. Table 7-29 – *Panel A*) shows that understandability was the of 'most important QC' for all the three decision roles. Neither relevance and faithful representation were selected in the first two places despite being termed 'fundamental QCs' by the IASB. Further, the Kruskal Wallis test was performed to examine whether there was a significant difference in the responses among three decision groups in relation to the importance of QCs. Results disclosed in Table 7-29 – *Panel B* show that there is no significant difference (α=5%) among the three groups for any QC.

In terms of assessing the importance of QCs from the investment and lending decision perspectives (Table 7-29 – *Panel C),* both groups have a more than 93% accumulated response rate for (2) – 'important', (3) – 'very important' and (4) – 'extremely important'. The mean values are close to 3.0 (Table 7-29 – *Panel D),* which means that all QCs are considered as 'very important' for investment and lending decisions. Lending decision-makers considered verifiability and timeliness as the second and third highest importance, respectively, while investment decision-makers considered timelines and faithful representation as to the second and third highest importance, respectively. Relevance is considered the least important QC by respondents in both decision roles.

Additionally, I examined the following hypothesis in relation to SRQ2.7:

H_6 – There is no statistically significant difference between investors and lenders in how important they consider the QCs to be for their decision-making

The Mann-Whitney U test was performed to test the above hypothesis using investment and lending decisions as two groups. Test statistics (cf. Table 7-29 – *Panel E*) reveal that H_6 is not rejected for any QC (at α=5%). I thus conclude that there are no statistically significant

differences in the responses between investment decisions and lending decisions with regard to the importance of QCs. The above results stand in contrast to the classification of fundamental and enhancing QCs by the IASB. In particular, my results show that the QC of 'relevance' is deemed the least important QC comparatively. On the other hand, QC 'understandability' was recognised as the most important QCs for information concerning investment and lending decisions in Sri Lanka.

7.5.7 Impact of IFRS in Sri Lanka

The third objective of the thesis is to examine the impact of IFRS on FRQ. Hence, I included a question to test the perception of respondents on the impact of IFRS on the FRQ in terms of achieving QCs (cf. Appendix 1 Survey Questionnaire – Section C, Question 13):

SRQ2.8: What is the perceived impact of IFRS adoption in Sri Lanka on i) how the QCs of useful information in annual reports improved, ii) the FRQ, iii) the usefulness of the narrative parts of annual reports, and iv) the usefulness of the financial statements?

Respondents were asked to state their agreement or disagreement on the given statements on a scale on (0) – Strongly disagree, (1) – Disagree, (2) – Neither agree nor disagree, (3) – Agree and (4) – Strongly agree. Table 7-30 shows that all respondents agreed that, compared to the Sri Lanka Accounting Standards (SLASs) applicable before 2012, IFRS had improved the QC and also the overall FRQ in Sri Lanka. The combined response rate ((3) – 'agree' and (4) – 'strongly agree') from advisors, investors and lenders is in the range of 63% to 85% for each of nine statements given in the questionnaire in relation to the impact of IFRS. This is supported by the mean, which is close to (3) – 'agree' was recorded by all the three parties for all the nine statements. The highest mean values (advisors: 3.10, investors: 2.94, and lenders: 2.91) are recorded against "IFRS has improved the quality of financial reporting of Sri

Lankan companies" and the corresponding frequency of the combined response ((3) – 'agree' and (4) – 'strongly agree') was 85%, 82%, and 81% for advisors, investors and lenders, respectively. All three groups accepted that timeliness was the least improved quality when compared to other QCs after adopting IFRS. The timeliness sub-item recorded the lowest frequency and lowest mean value of all responses (cf. Table 7-30).

Table 7-30 – Frequency of responses and mean statistics between decision roles on the impact of IFRS on QCs and FRQ

Compared to the SLASs applicable pre-2012, IFRS has improved….		**(0) %**	**(1) %**	**(2) %**	**(3) %**	**(4) %**	**Mean**	**SD**
…the relevance of the information provided by annual reports	Adv	0	1	11	74	14	3.00	.547
	Inv	0	2	13	74	11	2.94	.648
	Len	0	5	17	64	14	2.88	.699
…the faithful representation of information provided by annual reports	Adv	0	3	28	53	15	2.80	.730
	Inv	1	2	22	66	9	2.80	.648
	Len	0	2	19	67	12	2.87	.643
…the understandability of information provided by annual reports	Adv	0	6	18	64	13	2.83	.715
	Inv	1	3	21	67	8	2.78	.667
	Len	0	4	18	63	15	2.89	.716
…the timeliness of information provided by annual reports	Adv	1	5	26	57	11	2.73	.769
	Inv	1	5	31	52	11	2.68	.758
	Len	0	7	24	57	12	2.73	.756
…the comparability of information provided by annual reports	Adv	2	2	20	63	11	2.76	.816
	Inv	0	5	18	65	12	2.85	.686
	Len	0	2	20	64	14	2.89	.648
…the verifiability of the information provided by annual reports	Adv	0	5	27	58	10	2.74	.703
	Inv	1	5	27	60	8	2.70	.716
	Len	0	4	21	63	12	2.83	.701
…the usefulness of financial statements of Sri Lankan companies	Adv	0	3	17	58	22	2.98	.727
	Inv	0	3	17	63	17	2.93	.689
	Len	1	3	16	65	14	2.89	.716
…the usefulness of narrative reports included in annual reports	Adv	0	6	22	60	13	2.80	.730
	Inv	1	5	26	54	14	2.75	.784
	Len	2	5	23	60	9	2.68	.800
…the quality of financial reporting of Sri Lankan companies	Adv	0	0	15	60	25	3.10	.626
	Inv	1	3	14	65	17	2.94	.714
	Len	2	3	15	64	17	2.91	.770
(0)– strongly disagree; (1) – disagree; (2) – neither agree nor disagree; (3) agree; (4) – strongly agree (Adv – Advisors, Inv – Investors, Len – Lenders)								

A Kruskal-Wallis test was performed to examine whether there is a significant difference in the responses among three decision groups in relating to the perceived impact of IFRS. The test statistics disclose that there is no significant difference (α=5%) among the three

groups on the responses for the perceived impact of IFRS on FRQ (cf. Table 7-31 – Panel E). To examine whether there is a significant difference between investment and lending decisions in relation to the perceived impact of IFRS on QCs and overall FRQ, the following hypothesis was tested:

H_7 – There is no statistically significant difference between investors and lenders in relation to the perceived impact of IFRS on QCs and overall FRQ.

Table 7-31 – Frequency and difference in responses between decision roles to the perceived impact of IFRS on QCs and FRQ

Compared to the previous (before 2012) Sri Lanka Accounting Standards (SLASs), IFRS has improved….		**The relevance after IFRS**	**Faithful representation after IFRS**	**Understandability after IFRS**	**The timeliness after IFRS**	**Comparability after IFRS**	**Verifiability after IFRS**	**The usefulness of financial statements after IFRS**	**The usefulness of narrative reports after IFRS**	**FRQ after IFRS**
Panel A – % of responses for (3) 'agree'; (4) – 'strongly agree'										
Investment decision (n=214) %		86	72	75	66	76	68	80	70	83
Lending decision (n=235) %		79	79	78	69	78	75	79	69	81
Panel B – Mean and Standard deviation for Investment vs Lending decisions										
Investment decision (n=214)	Mean	2.96	2.80	2.80	2.70	2.83	2.71	2.95	2.77	3.00
	SD	.557	.678	.684	.761	.715	.710	.702	.763	.686
Lending decision (n=235)	Mean	2.88	2.88	2.89	2.73	2.89	2.83	2.89	2.68	2.91
	SD	.699	.643	.716	.756	.648	.701	.716	.800	.770
Panel C – Mean for Investment vs Lending decisions only with respondents above the age of 25										
Investment decision n=202)	Mean	2.96	2.81	2.87	2.69	2.84	2.71	2.93	2.79	3.00
Lending decision n=206)	Mean	2.89	2.87	2.87	2.74	2.88	2.83	2.89	2.68	2.90
Panel D – Kruskal Wallis Test (advisors n=88, investors n=147, and lenders n=214)										
Chi-Square		1.59	2.08	2.43	.729	.535	3.36	.897	.935	3.41
Asymp. Sig.		.451	.352	.296	.695	.765	.186	.639	.627	.181
Panel E – Mann-Whitney U test (investment decisions (n = 214) vs lending decisions (n = 235))										
Z		-1.04	-1.143	-1.43	-.508	-.577	-1.81	-.780	-.843	-1.07
Asymp. Sig. (2-tailed)		.296	.153	.151	.550	.564	.070	.435	.399	.282

The responses were examined with the Mann-Whitney U statistics to test H_7 using investment and lending decisions as two groups. Test statistics reveal that H_7 is not rejected for any QC (cf. Table 7-31 – Panel E), and I conclude that there are no statistically significant differences in the responses between the investment decisions and lending decisions regarding the perceived impact of IFRS on QCs or FRQ.

Additionally, a sensitivity check was conducted removing the 41 respondents who are below the age of 25 (in 2019), given that they may not have sufficient experience to compare SLAS and IFRS, since Sri Lanka adopted IFRS in the year of 2012 (at which time they would be 17 at most). Table 7-31 – Panel C provides mean values and shows that there is no significant difference between the mean values with and without the below 25 age respondents using the Mann-Whitney U test statistic.

7.5.8 The usefulness of sub-information items to assess QCs

The previous sections investigated the use of annual reports, the importance of QCs, and the impact of IFRS on QCs based on the data collected from Sections A, B, and C of the questionnaire. Fifty-four individual information items that are useful to make investment and lending decisions were categorised into 17 information dimensions (cf. Figure 7-2). As discussed in Chapter 3, the information dimensions were identified from the literature as variables that can be used to assess QCs. The literature also suggests (Chapter 3) that investors and lenders expect to find these information items in annual reports.

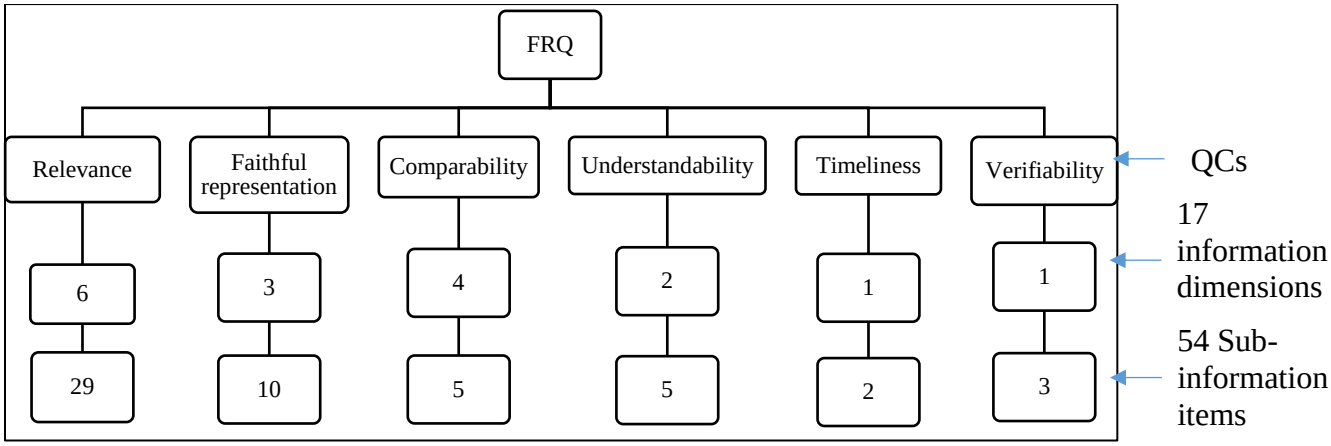


Figure 7-2 – Distribution of information to measure FRQ among QCs

This section investigates the usefulness of these information items, which were included in Section D of the questionnaire. In line with RQ1 and Step 2 of the research process (cf. Section 1.4) here I examine: i) how useful the information dimensions and sub-information items are for making investment and lending decision, and ii) whether there are significant differences in the decision usefulness for investment and lending decisions of the information items to assess the QCs. To test these questions, I formulated the following Null hypothesis:

H_8 – There is no statistically significant difference between investors' and lenders' responses in relation to the perceived usefulness of information items included in the survey (Section D) to assess the QCs.

As with other sections of the questionnaire, explicit instructions were given to respondents on the purpose of the section, and they were asked to assess the usefulness of information items based on their relevant decision experience, i.e., advising, investing or lending. Separate sectional headings were given to clarify each individual information item. Respondents were requested to indicate the usefulness of the information items included in each heading on a scale of (0) – 'not useful', (1) – 'somewhat useful', (2) – 'useful', (3) – 'very

useful' and (4) – 'extremely useful' (cf. Appendix 1 Survey Questionnaire – Section D, Question 13).

Analysis of 17 information dimensions

First, I analysed the 17 information dimensions, and 7-32 contains the results. The frequency patterns of responses across the 5 possible response categories (cf. 7-32) show unimodal patterns (i.e., approximate Normality in the widest sense), which means that a ranking based on calculated means will not produce significant biases. This indicates that the columns in the table which show the ranks produce a reliable comparison for the relative importance of the information dimensions.

According to ranking statistics, lenders selected 'cash flow related information' as the most useful to make their decisions. Advisors selected 'the audit report' as most useful to them, whereas investors opted for 'the risk information'. Advisors selected 'forward-looking information' and 'annual reports published within a shorter period' as second and third most important information, respectively. Investors consider the 'cash flow information' and 'annual reports published within a shorter period' as second and third sources at equal mean values. Lenders focused on 'the audit report' and 'risk-related information' as second and third priorities, respectively. Information on the 'arguments of accounting policies and estimates', 'related party transactions', and 'glossary of terms' was identified by all the three groups as less useful when compared with other information dimensions. This result is consistent with the mean values and ranking in, having being ranked into the last few in main 17 information categories. Additionally, lenders and investors gave a lower priority for 'segmental information' and 'use of a number of notes'.

All user groups relied more on the four main information categories: ‘information on future and past cash flow’, ‘information on risk’, ‘providing an audit report’, and ‘annual reports published within a shorter period of time’. Corresponds to the mean values, most of which are between 2.5 and 3 (‘very useful’) given in 7-32, indicate that all information dimensions were recognised by all user groups as ‘very useful’– (3) to make their decisions. It is important to note that no information dimension was considered ‘not useful’ by more than 5% of respondents. This confirms that all three groups of participants consider all the information dimensions identified in Chapter 3 to assess QC as useful in making investment and lending decisions.

7-32 – Perceived usefulness of information dimensions by user groups. (Based on the frequency of responses and their ranking based on means)

Major information dimensions	**Advisors (N=88)**							**Investors (N=147)**							**Lenders N= (214)**						
	(0)	(1)	(2)	(3)	(4)	Mean (SD)	Rank	(0)	(1)	(2)	(3)	(4)	Mean (SD)	Rank	(0)	(1)	(2)	(3)	(4)	Mean (SD)	Rank
	%	%	%	%	%			%	%	%	%	%			%	%	%	%	%		
Forward-looking Information	0	0	25	50	25	3.00 (.7)	*2*	1	6	30	34	29	2.83 (.9)	*4*	1	6	33	40	20	2.73 (.8)	*9*
Information on future and past cash flow	0	3	28	44	25	2.91 (.8)	*5*	2	6	26	35	31	2.86 (.9)	*2*	0	3	20	41	36	3.11 (.8)	*1*
Segmental information	0	10	29	46	15	2.67 (.8)	*14*	1	10	35	30	24	2.45 (1)	*16*	3	11	45	31	10	2.34 (.9)	*16*
Information on risk	0	4	26	39	31	2.98 (.8)	*4*	1	5	30	33	31	2.87 (.9)	*1*	1	5	26	37	31	2.94 (.9)	*3*
Asset liability & equality measured at fair value	0	3	35	43	19	2.78 (.8)	*8*	0	8	27	44	21	2.80 (.8)	*6*	1	5	29	43	22	2.78 (.8)	*8*
Information on capital structure	1	4	35	40	20	2.74 (.8)	*9*	1	6	32	39	22	2.73 (.9)	*8*	0	5	32	36	27	2.84 (.9)	*4*
Providing an audit report	0	3	27	35	35	3.01 (.8)	*1*	1	5	33	34	27	2.81 (.9)	*5*	1	5	26	32	36	2.99 (.9)	*2*
Arguments of accounting estimates and policies	0	13	36	33	18	2.57 (.9)	*17*	1	13	43	31	12	2.39 (.9)	*15*	2	10	38	37	13	2.50 (.9)	*14*
Inform related party disclosures	1	9	35	32	23	2.67 (.9)	*14*	1	10	35	33	22	2.65 (.9)	*12*	2	10	36	33	19	2.58 (.9)	*12*
Information on positive and events	0	12	29	37	22	2.68 (.9)	*13*	1	9	31	43	16	2.66 (.8)	*11*	2	8	37	32	21	2.61 (.9)	*11*
Readability of annual reports	0	11	24	37	28	2.82 (.9)	*6*	0	5	35	38	24	2.80 (.8)	*6*	1	4	33	35	27	2.84 (.8)	*4*
Glossary of terms	3	17	41	32	10	2.32 (.9)	*16*	1	21	41	27	10	2.23 (.9)	*17*	5	14	42	29	10	2.27 (1)	*17*
Graphical information	0	9	31	42	18	2.69 (.8)	*12*	0	10	30	37	23	2.69 (.9)	*10*	3	9	42	30	16	2.48 (.9)	*15*
Use of a number of notes	0	9	33	34	24	2.73 (.9)	*10*	1	11	37	37	14	2.53 (.8)	*14*	1	6	47	31	15	2.52 (.8)	*13*
Comparative information	0	9	28	44	19	2.73 (.8)	*10*	1	10	35	34	20	2.63 (.9)	*13*	1	8	34	38	19	2.69 (.8)	*10*
Proving ratios	0	11	18	49	22	2.81 (.9)	*7*	2	10	26	37	25	2.73 (1)	*8*	1	5	33	34	27	2.79 (.9.)	*7*
Annual reports published in a shorter period of time	0	6	16	51	27	3.00 (.8)	*2*	2	6.8	26	34	31	2.86 (1)	*2*	1	6	29	35	29	2.84 (9)	*4*
(0) – not useful; (1) – somewhat useful; (2) – useful; (3) – very useful and (4) – extremely useful																					

Table 7-33 – Perceived usefulness of 54 sub-information items by user groups

	Advisors							Investors							Lenders						
Information items	(0) %	(1) %	(2) %	(3) %	(4) %	Mean	SD	(0) %	(1) %	(2) %	(3) %	(4) %	Mean	SD	(0) %	(1) %	(2) %	(3) %	(4) %	Mean	SD
Forward-looking information																					
Forecasted revenue	1	0	31	43	25	2.91	0.81	1	7	31	39	23	2.77	0.91	**1**	5	30	45	19	2.78	0.82
Forecasted profit	1	5	31	42	22	2.78	0.88	0	8	31	40	21	2.73	0.89	0	5	30	45	20	2.79	0.82
Forecasted EPS	2	3	31	36	27	2.83	0.95	0	10	26	37	27	2.82	0.94	1	8	34	40	19	2.69	0.88
Forecasted MP	2	7	32	36	23	2.70	0.97	1	10	27	37	25	2.73	0.99	1	9	36	37	16	2.57	0.92
Future opportunities	2	1	21	47	30	3.00	0.87	1	8	20	32	40	3.03	0.98	0	5	25	41	29	2.93	0.86
Future strategies	1	3	27	32	36	2.99	0.94	1	6	27	31	35	2.95	0.96	0	4	29	39	27	2.89	0.85
Factors influence on revenue	0	5	24	42	30	2.97	0.85	1	7	27	35	30	2.87	0.95	0	5	30	40	25	2.85	0.86
Forecasted DPS	1	10	31	38	21	2.66	0.96	1	9	32	35	24	2.72	0.95	1	14	40	33	13	2.42	0.91
Future non-financial KPI	0	3	38	43	16	2.72	0.77	1	8	34	38	20	2.69	0.90	1	11	36	33	19	2.58	0.96
Information on future and past cash flow																					
Forecasted cash flows	2	2	26	43	26	2.89	0.90	1	7	29	32	32	2.88	0.96	1	3	22	39	36	3.06	0.86
Past cash and cash equivalent	0	7	36	39	18	2.68	0.85	2	12	32	35	18	2.56	0.99	0	4	27	44	25	2.90	0.82
Cash flow comparatives	0	9	41	34	16	2.57	0.87	3	10	36	33	18	2.52	1.00	1	6	29	41	24	2.83	0.88
Reasons for changes in cash flows	1	9	36	36	17	2.59	0.92	1	12	30	33	24	2.67	0.99	1	4	31	38	26	2.85	0.88
Segmental cash flows	0	8	32	44	16	2.68	0.84	3	12	37	30	17	2.67	0.97	1	7	30	41	22	2.75	0.90
Segmental information																					
Segmental information on revenue	0	7	38	36	19	2.68	0.86	1	12	37	32	18	2.52	0.97	1	11	45	29	15	2.47	0.89
Comparative segmental information	0	10	27	47	16	2.68	0.86	1	11	39	33	16	2.51	0.93	2	9	43	31	15	2.47	0.92
Segmental past profit	0	8	33	46	14	2.65	0.82	3	12	43	29	14	2.40	0.96	1	10	44	31	15	2.47	0.91
Segmental profit forecast	2	7	36	40	15	2.58	0.91	3	12	37	33	16	2.46	0.99	1	10	44	31	15	2.54	0.88
Segmental non-financial KPI	0	6	47	36	11	2.53	0.77	2	12	38	33	14	2.46	0.95	3	14	40	29	14	2.36	0.99
Information on risk																					
The risk profile of the current year	0	5	30	39	27	2.89	0.86	1	6	28	37	29	2.86	0.93	1	3	31	32	32	2.93	0.90
Disclosure of risk plans	0	5	31	41	24	2.84	0.84	2	4	29	37	28	2.84	0.95	1	6	32	32	29	2.84	0.94
Comparison of risk profiles	3	7	28	39	23	2.70	1.01	2	8	31	34	25	2.72	1.00	1	7	31	35	27	2.80	0.93
Assets (A), liabilities (L), and equity (E) measured at fair value																					
Assets, liability, & equity measured at historical cost	0	17	41	30	13	2.38	0.91	3	25	36	22	13	2.16	1.05	3	15	38	29	14	2.36	1.01
Assets, liability, and equity measured fair value	0	19	39	30	13	2.35	0.94	5	22	37	24	12	2.15	1.05	5	14	32	36	14	2.40	1.03
Disclosures of measures	0	7	42	31	21	2.65	0.88	1	9	35	40	14	2.57	0.89	2	8	35	37	18	2.61	0.94
Information on changes in fair values of assets, liability, and equity	0	5	35	40	21	2.76	0.83	1	8	31	43	18	2.69	0.87	1	4	39	39	18	2.69	0.84
Information on the capital structure																					
Explanation of debt and equity	1	3	32	38	26	2.84	0.90	1	7	30	36	26	2.78	0.95	1	7	26	39	29	2.88	0.91

Comparative of capital structure	1	3	38	35	23	2.75	0.89	1	5	36	40	18	2.69	0.86	0	4	32	39	25	2.85	0.84
Information on long term debt	1	5	33	39	23	2.77	0.89	1	4	37	34	24	2.76	0.89	1	3	28	44	25	2.90	0.82
Providing an audit report																					
Unmodified audit report	1	6	31	32	31	2.85	0.97	2	10	30	29	28	2.71	1.05	3	6	25	41	26	2.81	0.98
Third party independent report for narratives	1	7	36	33	23	2.69	0.94	2	12	42	25	19	2.47	1.00	4	13	33	36	15	2.46	1.02
Annual reports audited by Big 4 audit firms	1	10	34	26	28	2.70	1.03	4	9	31	32	24	2.63	1.07	1	12	27	36	23	2.67	1.00
Arguments of accounting estimates and policies																					
Explanations of accounting estimates and policies	0	15	43	26	16	2.43	0.93	3	14	44	27	12	2.33	0.95	6	11	39	30	14	2.35	1.03
Basis of making accounting estimates and policies	0	15	41	28	16	2.45	0.93	3	15	40	31	11	2.33	0.95	4	11	38	32	15	2.41	1.01
Limitations of accounting estimates and policies	1	16	38	32	14	2.41	0.95	3	15	43	29	10	2.29	0.94	4	13	36	34	13	2.39	1.00
Fact affecting accounting estimates and policies	0	15	41	28	16	2.45	0.93	3	17	37	32	11	2.30	0.99	3	12	42	33	11	2.36	0.94
Reasons for changes in accounting estimates & policies	1	15	40	24	21	2.48	1.02	3	20	36	29	12	2.26	1.01	2	14	38	33	13	2.40	0.96
Information on related party disclosures																					
Report on related party disclosures	2	9	35	34	19	2.59	0.98	1	10	53	24	12	2.55	0.95	5	12	37	29	18	2.46	1.06
Information on positive and negative events																					
Information on past negative events	0	16	34	30	21	2.55	0.99	2	14	40	32	13	2.40	0.95	2	9	40	34	14	2.48	0.93
Information on past positive events	0	13	46	23	19	2.49	0.95	3	16	40	29	12	2.30	0.98	3	12	39	33	13	2.40	0.97
Information on future negative events	0	14	24	40	23	2.72	0.97	1	8	30	38	23	2.75	0.93	1	9	35	36	19	2.62	0.94
Information on future positive events	1	10	28	34	26	2.74	1.00	1	10	31	39	20	2.67	0.93	1	8	34	38	18	2.64	0.92
Readability of annual reports																					
Use of shorter sentences	6	22	30	30	14	2.24	1.11	11	27	32	23	8	1.87	1.14	9	23	35	22	11	1.95	1.20
Use of non-technical terms	7	18	35	26	14	2.22	1.11	12	22	31	25	10	1.97	1.18	11	12	32	24	10	1.99	1.18
Glossary of terms	3	14	41	32	10	2.32	0.95	1	21	41	27	10	2.23	0.94	5	14	42	29	10	2.27	1.00
Graphical information																					
Infographics	0	10	34	39	17	2.63	0.89	1	10	31	39	18	2.63	0.95	1	12	42	30	15	2.44	0.93
Use of the number of notes	0	9	33	34	24	2.73	0.93	1	11	37	37	14	2.53	0.89	1	6	47	31	15	2.52	0.87
Details of notes	1	8	36	34	21	2.65	0.94	1	11	36	37	15	2.53	0.92	1	9	44	34	12	2.47	0.86
Comparative information above 1 year																					
Comparison of revenue and profit	0	10	34	35	21	2.66	0.92	1	10	40	33	17	2.56	0.91	1	7	35	41	16	2.66	0.85
Comparison of profit with last year forecast	1	6	38	35	21	2.68	0.90	2	8	40	32	18	2.57	0.94		7	35	38	20	2.71	0.87
Comparison with industry	1	6	35	36	22	2.72	0.91	1	6	34	35	24	2.76	0.91	1	6	34	42	18	2.71	0.85
Comparison of KPI	1	7	39	38	16	2.60	0.88	2	8	39	32	19	2.58	0.96	1	9	40	36	15	2.53	0.89
Proving ratios																					
Analysis of ratios	0	8	25	44	23	2.82	0.88	1	7	33	31	29	2.80	0.96	1	6	31	35	28	2.83	0.93
Annual reports published a within a shorter period																					
Annual reports finalised before 3 months to the year-end	3	7	34	41	15	2.57	0.94	3	14	36	30	17	2.44	1.02	1	8	39	35	17	2.58	0.90
Annual reports published before 3 months to year-end	8	26	34	22	10	2.00	1.10	12	23	33	20	12	1.99	1.17	8	12	43	25	12	2.20	1.07
(0) – not useful; (1) – somewhat useful; (2) – useful; (3) – very useful and (4) – extremely useful																					

Analysis of sub-information items

At this point, I would stress that the 54 sub-information items were provided in the survey (Section D) without notifying users about the related QC. The formulation of Section D in the survey gave no indication as to which QC the information dimension or the sub-information items were related. This assignment was based on my literature review in Chapter 3 and only known to the researcher. Whether a sub-information item indeed is a valid measure for a particular QC (and indirectly for a particular information dimension) is subject to empirical testing (cf. Chapter 8). In this section, I present a summary of the respondents' views on the usefulness of the 54 individual sub-information items (cf. Table 7-33).

I observe that the majority of respondents indicated that all of the 54 sub-information items are either (2) – 'useful', (3) – 'very useful' and (4) – 'extremely useful'. Responses of the three groups for all the information items record mean values above 2.0, i.e., (2) – 'useful', except for the 'use of shorter sentences' and 'use of non-technical terms' by investors and lenders. Both the advisors (mean=3.0) and investors (mean=3.03) identified 'future opportunities' as a 'very useful' information item, whereas lenders (mean=3.06) opted for 'forecasted cash flows'. Overall, investors and advisors preferred information items categorised under 'forward-looking information', with relatively high mean values, and lenders recorded relatively high mean values for 'cash flow related information'.

The usefulness of sub-information items for investment and lending decisions (cf. Section 1.4 – Step 2)

In this section, I discuss the responses between two groups, i.e., investment and lending decision-makers, and I test H_8 using the Mann-Whitney U test statistics. The question is whether or not there is a significant difference in the responses made by the two groups:

investors and advisors (investing decisions), and lenders (lending decisions). The results are shown in Table 7-34.

The combined investors and advisors' responses do not change the conclusions I have drawn when discussing them separately above (Table 7-33). Still, in Table 7-34, out of 54 cases, the responses are most frequently observed in the (2) – 'useful', (3) – 'very useful' and (4) – 'extremely useful' columns. Both the decision groups reported mean values of above 2.0, i.e., (2) – 'useful' for all the information items except the 'use of shorter sentences' (1.95) and 'use of non-technical terms' (1.99) for lending decision-makers. In particular, investment decision-makers recorded the highest frequency of responses under 'extremely useful' for the information item 'future strategies', whereas lenders for 'the audit report'. Thus, I conclude that all the sub-information items that I have identified from the literature have been deemed at least 'useful' for investment and lending decisions. I thus have achieved Step 2 (cf. Section 1.4) of my research endeavour.

Table 7-34 – Frequency of responses and Mann-Whitney U test statistics for investment vs lending decisions for the 54 sub-information items

	Investment decisions (Investors and advisors together)						**Lending decision**						**Mann-Whitney U Test Sig. (2-tailed)**
	(0)	(1)	(2)	(3)	(4)	Mean	(0)	(1)	(2)	(3)	(4)	Mean	
# Forward looking information	1	3	28	40	28	2.89	1	6	33	40	20	2.73	.044*
Forecasted revenue	1	4	31	40	24	2.82	**1**	5	30	45	19	2.78	.581
Forecasted profit	1	7	31	40	21	2.75	0	5	30	45	20	2.79	.727
Forecasted EPS	2	6	28	37	27	2.84	1	8	33	39	19	2.69	.063
Forecasted MP	3	7	29	37	24	2.72	1	9	36	38	16	2.57	.068
Future opportunities	2	5	20	37	36	3.02	0	5	25	41	29	2.93	.163
Future strategies	1	4	27	32	36	2.96	0	4	29	40	27	2.89	.270
Factors influence on revenue	1	5	26	38	30	2.91	0	5	30	40	25	2.85	.364
Forecasted DPS	1	8	32	36	23	2.70	1	14	40	32	13	2.42	.002*
Future non-financial KPI	1	6	35	40	18	2.70	1	11	36	33	19	2.58	.214
# Information on future and past cash flow	2	4	26	39	29	2.88	0	3	20	41	36	3.11	.012*
Forecasted cash flows	1	5	28	36	30	2.88	1	3	22	38	36	3.06	.053
Past cash and cash equivalent	2	9	34	37	18	2.60		4	27	44	25	2.90	.001**
Cash flow comparatives	3	10	38	34	17	2.54	1	6	29	40	24	2.83	.001**

Reasons for changes in cash flows	2	11	32	35	21	2.64	1	4	31	38	26	2.85	.028*
Segmental cash flows	3	6	34	36	21	2.67	1	7	30	40	22	2.75	.320
# Segmental information	1	12	34	36	17	2.53	3	11	45	31	10	2.34	.023*
Segmental information on revenue	1	10	37	34	18	2.58	1	11	44	29	15	2.47	.134
Comparative segmental information	1	10	35	38	16	2.57	2	9	43	31	15	2.47	.228
Segmental past profit	3	9	39	35	14	2.49	1	10	44	30	15	2.47	.687
Segmental profit forecast	5	8	37	35	15	2.51	1	10	44	30	15	2.54	.885
Segmental non-financial KPI	2	9	41	35	13	2.49	3	14	40	29	14	2.36	.191
# Information on risk	1	5	28	35	31	2.91	1	5	26	37	31	2.94	.754
The risk profile of the current year	1	5	29	37	28	2.87	1	3	31	33	32	2.93	.553
Disclosure of risk plans	2	4	30	38	26	2.84	1	6	32	32	29	2.84	.896
Comparison of risk profiles	5	5	30	36	24	2.71	1	7	31	35	26	2.80	.470
# Assets (A), liabilities (L), and equity (E) measured at fair value	0	7	29	44	20	2.79	1	5	29	43	22	2.78	.960
A, L & E measured at historical cost	3	21	38	25	13	2.24	3	15	38	30	14	2.36	.161
A, L& E measured fair value	5	19	38	26	12	2.23	5	14	32	35	14	2.40	.032*
Disclosures of measures	1	7	38	37	17	2.60	2	8	35	37	18	2.61	.756
Information on changes in fair values of A, L, and E	1	5	33	42	19	2.72	1	4	39	38	18	2.69	.602
# Information on capital structure	3	4	33	39	21	2.74	0	5	32	36	27	2.84	.285
Explanation of debt and equity	2	4	31	37	26	2.80	1	7	26	37	29	2.88	.359
Comparative of capital structure	2	3	37	38	20	2.71	0	4	32	39	25	2.85	.124
Information on long term debt	2	7	36	36	23	2.77	1	3	28	43	25	2.90	.104
# Providing an audit report	1	4	31	34	30	2.88	1	5	26	32	36	2.99	.190
Unmodified audit report	3	7	31	30	29	2.76	3	6	25	40	26	2.81	.557
Third party report for narratives	3	9	40	28	20	2.55	4	13	33	35	15	2.46	.547
Annual reports audited by Big 4	5	7	32	30	26	2.66	1	12	27	37	23	2.67	.889
# Arguments of accounting estimates and policies	1	12	40	32	15	2.46	2	10	38	37	13	2.50	.541
Explanations of accounting estimates and policies	3	12	44	27	14	2.37	6	11	39	30	14	2.35	.816
Basis of making accounting estimates and policies	3	14	40	30	13	2.37	4	11	38	32	15	2.41	.526
Limitations of accounting estimates and policies	4	13	41	30	12	2.34	4	13	36	34	13	2.39	.380
Fact affecting accounting estimates and policies	3	15	38	31	13	2.36	3	12	41	33	11	2.36	.881
Reasons for changes in acc. estimates and policies	5	16	37	27	15	2.34	2	14	38	33	13	2.40	.477
#Information on related party disclosures	2	8	35	32	23	2.66	1	10	36	34	19	2.58	.474
Report on related party disclosures	3	8	40	29	20	2.57	5	10	37	30	18	2.46	.430
#Information on positive and negative events	1	10	30	41	18	2.67	2	8	37	32	21	2.61	.490
Information on past negative events	2	14	37	31	16	2.46	2	9	40	35	14	2.48	.694
Information on past positive events	3	13	42	27	15	2.37	3	12	39	33	13	2.40	.586
Information on future negative events	1	9	28	39	23	2.74	1	9	35	36	19	2.62	.180
Information on future positive events	2	9	30	37	22	2.69	1	8	35	38	18	2.64	.487
#Readability of annual reports	0	16	31	37	26	2.80	1	4	33	35	27	2.84	.773
#Shorter sentences	6	17	41	26	10	2.01	15	17	35	22	11	1.95	.634
Use of non-technical terms	5	28	33	26	11	2.06	14	19	33	24	10	1.99	.534
#Glossary of terms	5	25	41	29	10	2.26	5	14	41	29	11	2.27	.794
#Graphical Information	0	11	30	38	21	2.69	3	9	42	30	16	2.48	.014*
Infographics	1	10	32	39	18	2.63	1	12	42	30	15	2.44	.024*
#Use of number of notes	1	9	36	36	18	2.60	1	6	47	31	15	2.52	.259
Details of notes	3	10	36	36	17	2.57	1	9	44	34	12	2.47	.184

#Comparative information	1	9	32	38	20	2.66	1	8	33	39	19	2.69	.788
Comparatives on revenue and profit	1	9	38	34	18	2.60	1	7	35	41	16	2.66	.409
Comparatives of profit with last year forecast	3	6	39	33	19	2.61		7	35	38	20	2.71	.298
Comparatives with industry	2	4	35	36	23	2.74	1	6	34	41	18	2.71	.714
Comp of KPI	3	6	39	34	18	2.59	1	9	40	35	15	2.53	.497
#Proving ratios	2	10	23	41	24	2.76	1	5	33	34	27	2.79	.875
Analysis of ratios	1	7	30	36	26	2.80	1	5	31	35	28	2.83	.740
#Annual reports published in shorter period	2	6	22	40	30	2.91	1	6	29	35	29	2.84	.360
Annual reports audited and finalised before 3 months to the year-end	5	10	35	34	16	2.49	1	8	39	35	17	2.58	.422
Annual reports published before 3 months to the year-end	16	18	34	21	11	2.00	8	12	43	25	12	2.20	.027*
(0) – not useful; (1) – somewhat useful; (1)– useful; (3) – very useful and (4) – extremely useful # major information dimensions Level of significance: **: significant at 5%; **: significant at 1%													

The final analysis relates to $H_{8,}$ in which I assess whether or not there is a difference in the responses about the usefulness of the sub-information items between investment and lending decision-makers. The results from the Mann-Whitney U test are shown in Table 7-34. The test statistics show that there is a statistically significant difference for eleven items where H_8 is rejected at the 5%-level. These are:

- five information dimensions: ('forward-looking information', information on future and past cash flow, segmental information, graphical information, infographics); and
- six sub-information items (forecasted DPS, past cash and cash equivalent, cash flow comparatives, reasons for changes in cash flows, assets, liability and equity measured at fair value, and annual reports published before three months).

The significant differences found are further examined in Table 7-35. Of the eleven items, six are considered more useful for investment decisions than lending decisions, and the other five are considered more useful for lending decisions than investment decisions. Cohen's effect sizes r for all eleven items are close to 0.1, which suggests a small effect size (Cohen, 1988, 1992).

Table 7-35 – Difference of responses for the usefulness of the information

	Investment (investors + advisors) decisions		**Lending decisions**		**Mann-Whitney U Test statistics**	**Decision-based on the usefulness of information for lending decisions and investment decisions**		
	Mean	SD	Mean	SD	Z	Asymp. Sig. (2-tailed)	More useful to …	Effect size $abs(r) = abs(Z/\sqrt{N})$
#Forward looking information	2.89	.883	2.73	.878	-2.012	.044*	… investment decisions	0.09
#Segmental information	2.53	.971	2.34	.909	-2.267	.023*	… investment decisions	0.11
#Graphical information	2.69	.953	2.48	.968	-2.450	.014*	… investment decisions	0.12
#Infographics	2.63	.922	2.44	.931	-2.256	.024*	… investment decisions	0.11
#Information on future and past cash flow	2.88	.926	3.11	.812	-2.515	.012*	… lending decisions	0.12
Forecasted DPS	2.70	.951	2.42	.915	-3.163	.002*	… investment decisions	0.15
Past cash and cash equivalent	2.60	.943	2.90	.825	-3.317	.001**	… lending decisions	0.16
Cash flow comparatives	2.54	.953	2.83	.877	-3.277	.001**	… lending decisions	0.15
Reasons for changes in cash flows	2.64	.965	2.85	.875	-2.200	.028*	… lending decisions	0.10
Assets, liability and equity measured at fair value	2.23	1.011	2.40	1.03	-2.142	.032*	… lending decisions	0.10
Annual reports published before 3 months	2.00	1.143	2.20	1.07	-2.207	.027*	… lending decisions	0.10
# Information dimensions	Level of significance: *: significant at 5%; **: significant at 1%							

7.6 Summary

In this chapter I examined in relation to different decision roles i) the usefulness of annual report information, ii) the importance of QCs, iii) the perceived impact of IFRS, and iv) the usefulness of information items which are used to assess QCs for investment and lending decisions. In achieving these research tasks, the perceptions of investment advisors, investors, and lenders with regard to annual reports were examined by considering their experience in these decision scenarios. To do so, a questionnaire survey was used in both an online email and a paper-based mode to collect responses from Sri Lankan participants. In total, 449 responses were received, consisting of 235 investment decision-makers and 214 lending decisions-makers. Six survey questions (Section B of the survey) were formed to address the usefulness of annual reports, and two questions (Section C) were used to examine the importance of QCs and impact of IFRS for FRQ in Sri Lanka. Section D was devoted to examining the usefulness

of information items which the literature suggests would be good candidates to measure QCs and also FRQ. In answering those questions, eight hypotheses were tested using the Kruskal-Wallis and Mann-Whitney U tests.

With respect to the usefulness of annual reports in Sri Lanka, the following findings were made. Annual reports are used frequently by users for investment and lending decisions. 'Stock market publications' were recognised as the most frequently used source of information for investment decisions, while 'communication with company management' was the most frequently used source for lending decisions in Sri Lanka. There was a significant difference in the responses between investment and lending decision-makers in terms of other sources of information, for example, 'newspaper articles' and 'stockbroker advice'. I found no significant difference in the responses for the usefulness and adequacy of annual reports for lending decisions and investment decisions, and both groups agreed that annual reports are useful and adequate for their decisions. However, it was noted that annual reports are regarded as more important than useful and adequate to make investment and lending decisions.

In terms of the various sections that are included in an annual report, both groups of decision-makers identified that the 'income statement', the 'cash flow statement', and the 'statement of financial position' are the most useful sections in annual reports. 'Delays in publishing annual reports was the major factor that restricted the usefulness of annual reports for both groups of decision-makers. Further, I found there was no statistically significant difference in the responses between the investment decisions and lending decisions with regard to the importance of QCs, and respondents identified understandability as the most important QC for both investment and lending decisions. In assessing the impact of IFRS on FRQ in Sri Lanka, both groups of respondents agreed that QCs have improved as a result of adopting IFRS in 2012, and that FRQ has also improved.

All the information dimensions and individual sub-information items that are used to assess QCs are recognised, on average, to be at least useful for investment and lending decisions. However, there is a significant difference in the responses between investment and lending decisions in five information dimensions (forward-looking information, segmental information, graphical information, information about past cash flows, and information on infographics). Out of these five information items, except cash flow information, all other information items are recognised as more useful to investment decisions rather than lending decisions. There is also a significant difference, albeit with a small Cohen r effect size, in the responses between investment and lending decisions for six sub-information items (forecasted DPS, past cash and cash equivalents, cash flow comparatives, the reason for changes in cash flows, use of fair value, and annual reports published before three months). Except for 'forecasted DPS' the other five sub-information items are more useful for lending decisions than for investment decisions.

As a consequence of the above findings, the evidence on the selected sub-information items permits the production of a useful FRQ measurement index for both decision roles. All 54 and 17 information items are, on average, considered as useful by all user groups, and the significant differences in the 54 information items between investment and lending decision-making are few (six) and minimal (small effect size). While the survey has been designed explicitly without pre-assumed homogeneity of investors and lenders to frame the questions within an appropriate context for the user groups, I noted that the difference of perceived usefulness for the sub-information items between investment and lending decision-makers is minimal. Based on the above grounds, I chose to design one 'universal' FRQ measurement index. This is important to recognise because in the next (Chapter 8) I shall be using all responses obtained to develop, test, and validate such an FRQ measurement index (Step 3 of my research process).

Chapter 8

Developing and validating the FRQ measurement index

8.1 Introduction

Step 3 (cf. Chapter 1, Section 1.4) of my research is to develop the FRQ measurement index based on data from Sri Lankan investors and lenders which includes the set of measures that the Sri Lankan respondents associate with QCs and FRQ (cf. Chapter 7). My FRQ index builds on previous work and extends it as discussed in Chapters 2, 3 and 4. The contrast to previous studies is that my research to assess FRQ is based on a hierarchical analysis framework (cf. Figure 8-1). The QCs are assumed to be latent constructs which I describe by 17 information dimensions, which in turn are split into 54 *measurable* sub-information items. Selection and validation of the sub-information items have been reported in Chapter 3 and 7. The first main objective of this chapter is to statistically demonstrate that the 54 sub-information items (so-called indicators) represent the main 17 information dimensions (so-called first-order constructs). To do so, I first determine the measurement scales for the sub-information items. I then discuss the validity[42] and reliability[43] of the FRQ measurement index. The second main objective of this chapter is to investigate different hierarchical models which best allow the information dimensions to represent the QCs.

To achieve the two main objectives, I use Partial Least Square Structural Equation Modelling (PLS-SEM) as implemented in the SmartPLS 3.2.8 software package (Ringle, Wende, & Becker, 2015).

[42] …"is the extent to which a construct's indicators jointly measure what they are supposed to measure" (Hair Jr, Hult, Ringle, & Sarstedt, 2016, p.330).

[43] …"is the consistency of a measure. A measure is reliable (in the sense of test-retest reliability) when it produces consistent outcomes under consistent conditions. The most commonly used measure of reliability is the *internal consistency* reliability" (Hair Jr et al., 2016, p. 326)

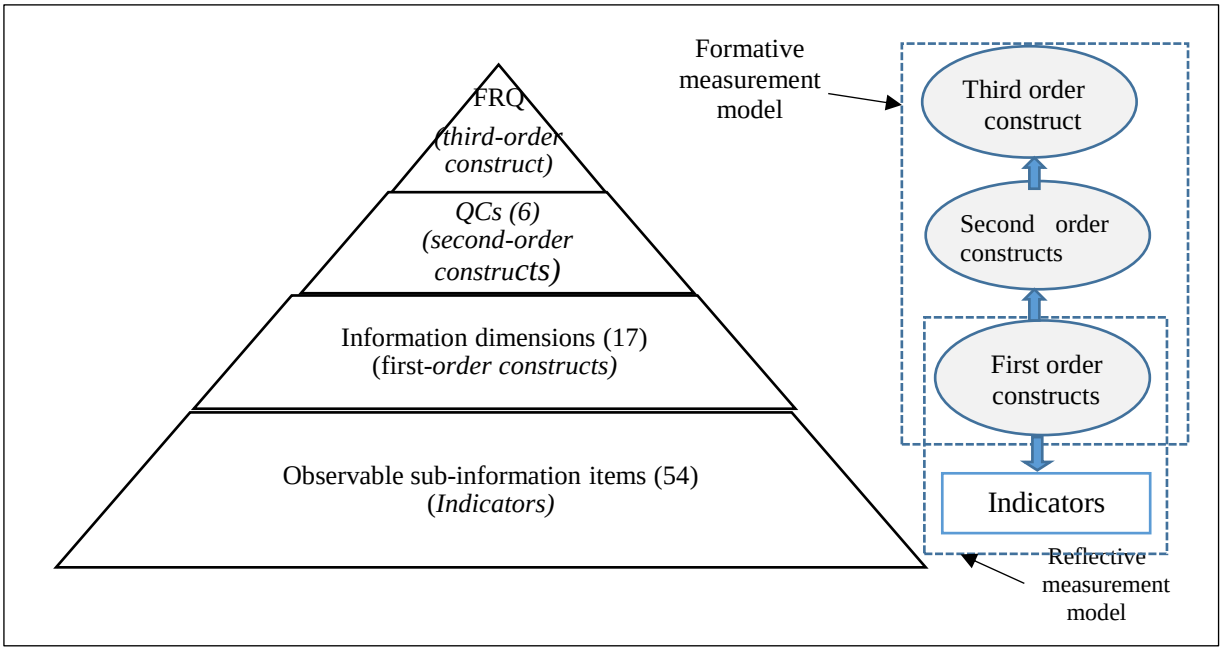


Figure 8-1 – Structure and identification of formative and reflective models

8.2 Partial Least Squares Structural Equation Modelling (PLS-SEM)

As discussed by do Nascimento & da Silva Macedo (2016) and Lee, Petter, Fayard, & Robinson (2011), PLS-SEM has been extensively used in the social sciences to analyse quantitative data. However, its proliferation within the accounting discipline is modest to date. As a second-generation statistical technique, this thesis uses PLS-SEM to evaluate the proposed FRQ measurement index due to number of advantages over first-generation statistical techniques such as regression, factor analysis, and analysis of variance. Below I list five such advantages that support and explain that decision.

First, is that PLS-SEM allows analysing measurement models and structural models with multi-item constructs which consist of direct, indirect and interaction effects (e.g., Wasko & Faraj, 2005; Kim, Chan, & Kankanhalli, 2012). These advantages lend themselves to using PLS-SME because the QCs are postulated in the form of fundamental and enhancing characteristics with different interrelationships.

Secondly, PLS-SEM does not consider assumptions about the distribution of data and be able to produce robust model estimations through data that have Normal as well as non-Normal probability densities (Hair Jr et al., 2016; L. Lee et al., 2011). Some of my survey data collected in Section D of the questionnaire do not produce well-fitting statistics to the Normal distribution. Hence, the statistical analysis in PLS provides a suitable platform to test the data quality of my measures when they display a non-Normal character.

Thirdly, PLS-SEM is not restrictive on the sample, unlike covariance-based structural equation modelling methods (CB-SEM) that require relatively large sample sizes (Hair Jr et al., 2016; H.-W. Kim et al., 2012). According to Hair Jr et al. (2016, p. 28), with larger data sets ($N \geq 250$), CB-SEM and PLS-SEM results are similar when an appropriate number of indicator variables (four or more) are used to measure the constructs.

As the fourth reason, PLS-SEM is appropriately used in the early stages of theory development (Hair Jr et al., 2016; Xu, Teo, Tan, & Agarwal, 2009). Considering that the IASB postulates a certain number and arrangement of QCs within their conceptual frameworks, my work can be seen as exploratory in the sense that I examine the appropriateness of QCs, their interrelatedness and trade-offs, and their contributions towards measuring FRQ.

Fifth, structural equation modelling is powerful when the phenomenon of interest (FRQ) is not directly observable. The relationship between latent variables (constructs) and their measures (items or indicators) is recognized as a measurement model (Hair Jr et al., 2016). The latent constructs are assessed through indicators that serve as proxies. Consequently, through the amalgamation of several items on a scale, the abstract concept of interest can be measured indirectly. As noted earlier in this research, FRQ is assessed through six

unobservable QCs, which in turn are assessed with 17 information dimensions the 17 information dimensions are assessed by 54 observable sub-information items (cf. Figure 8-1). Having three layers of relationships produces a third-order structural model. Wetzels, Odekerken-Schröder, & Van Oppen (2009) and Afthanorhan (2014) support that PLS modelling is a suitable method to analyse the nature of such hierarchical models. The analysis of hierarchical component models has typically three stages (Afthanorhan, 2014; Agarwal & Karahanna, 2000; Hair Jr et al., 2016; Wetzels et al., 2009):

1. The psychometric properties of all first-order constructs are examined. In my proposed model, the second-order constructs were represented by all the items of their first-order constructs and the third-order constructs were represented by all second-order constructs in the PLS-SEM path model;
2. Factor scores of first-order latent variables are used to run the second-order model; and
3. The factor scores of second-order latent variables were used to run a third-order model.

Furthermore, the relationship between constructs and indicators can be either reflective or formative (Hair Jr et al., 2016; Petter, Straub, & Rai, 2007). A reflective measurement model assumes that the construct causes the measurement of the indicator variables (the direction of the arrows is from the construct to the indicator variables) and a formative measurement model assumes a causal (predictive) relationship in a direction from the indicator variables to the construct. My FRQ measurement model is a mix of reflective and formative features: the first-order level is thus reflective (cf. Figure 8-1), and the second and third-order levels are formative. PLS-SEM can easily handle reflective and formative measurement models (Hair Jr et al., 2016).

8.3 Evaluation of the measurement model – First-order constructs

This section discusses the reliability and validity of the measurement model and demonstrates that the 54 sub-information items (indicators) represent the 17 information dimensions (first-order constructs). This is the first-order construct shown in Figure 8-1, and the modelling is reflective. The method I use to achieve the above task is (confirmatory) factor analysis within the SEM domain and as implemented by SmartPLS, which I discuss below.

Firstly, I drew a path model (cf. Figure 8-2) in SmartPLS linking indicators (rectangles: 54 sub-information items) to first-order constructs (small circles: 17 information dimensions) in a reflective form (arrows pointing from 17 information items to 54 sub-information items). Because of the hierarchical component model[44] I worked with, I also needed to link the first-order constructs to second-order constructs (medium circles: 6 QCs) and second-order constructs to the third-order construct (large circle: FRQ) in a formative way (arrows pointing from 17 information items to 6 QCs and FRQ). Then, I used the 449 responses received from investors and lenders for the 54 sub-information items (from Section D of the survey) that are stored in Excel. I imported these to SmartPLS and loaded them into my path model. Since there are no direct measures for both the first-order and second-order latent variables, I used the repeated indicator approach,[45] i.e., I loaded all indicators of first-order constructs to third-order latent variables via the second-order constructs. Using the path model presented in Figure 8-2, I ran the consistent PLS algorithm of 'partial least square factor analysis'.

[44] Hierarchical Component Model (HCM) is a "higher-order structure (usually second-order) that contains several layers of constructs and involves a higher level of abstraction. HCMs contain at least one more abstract *higher-order component* that is related to two or more *lower-order components.* The relationship can be either reflective or formative" (Hair Jr et al., 2016, p. 319).

[45] The repeated indicator approach is a "type of measurement model setup within hierarchical component modelling that uses the indicators of the *lower-order components* as indicators of the higher order components to create an HCM in PLS-SEM" (Hair Jr et al., 2016, p. 328).

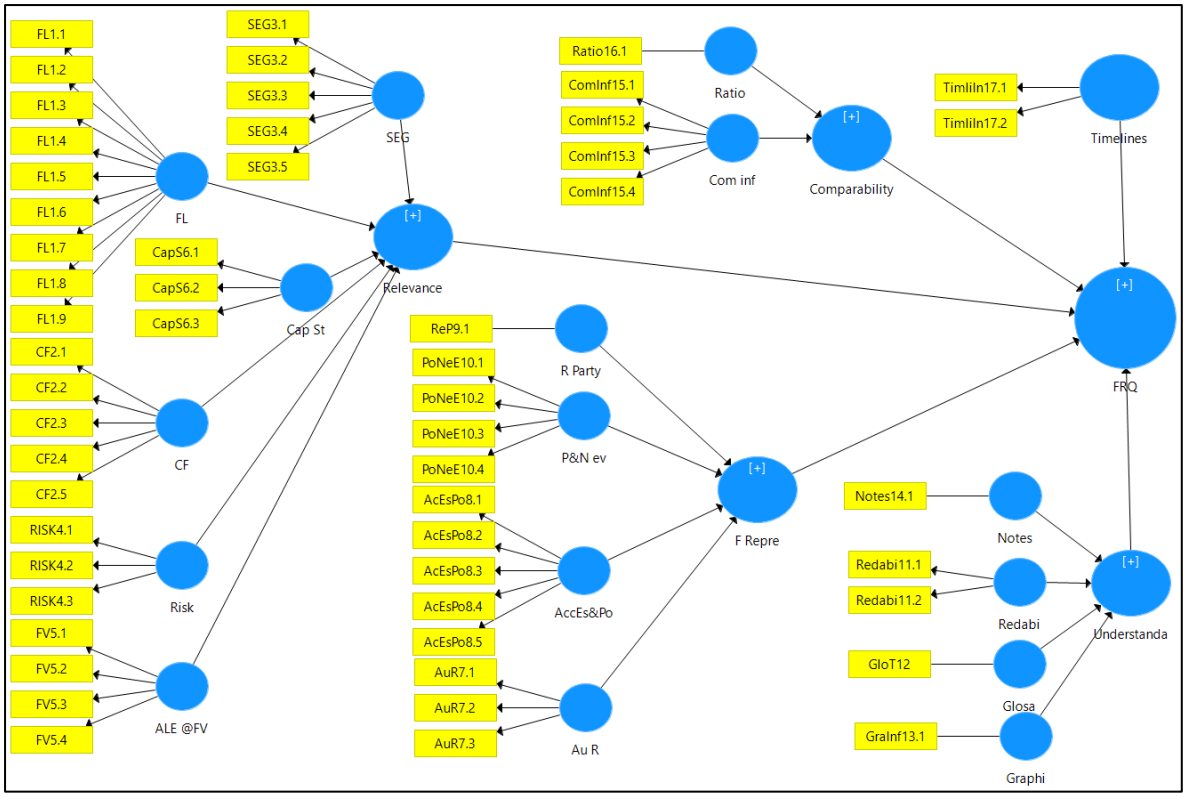
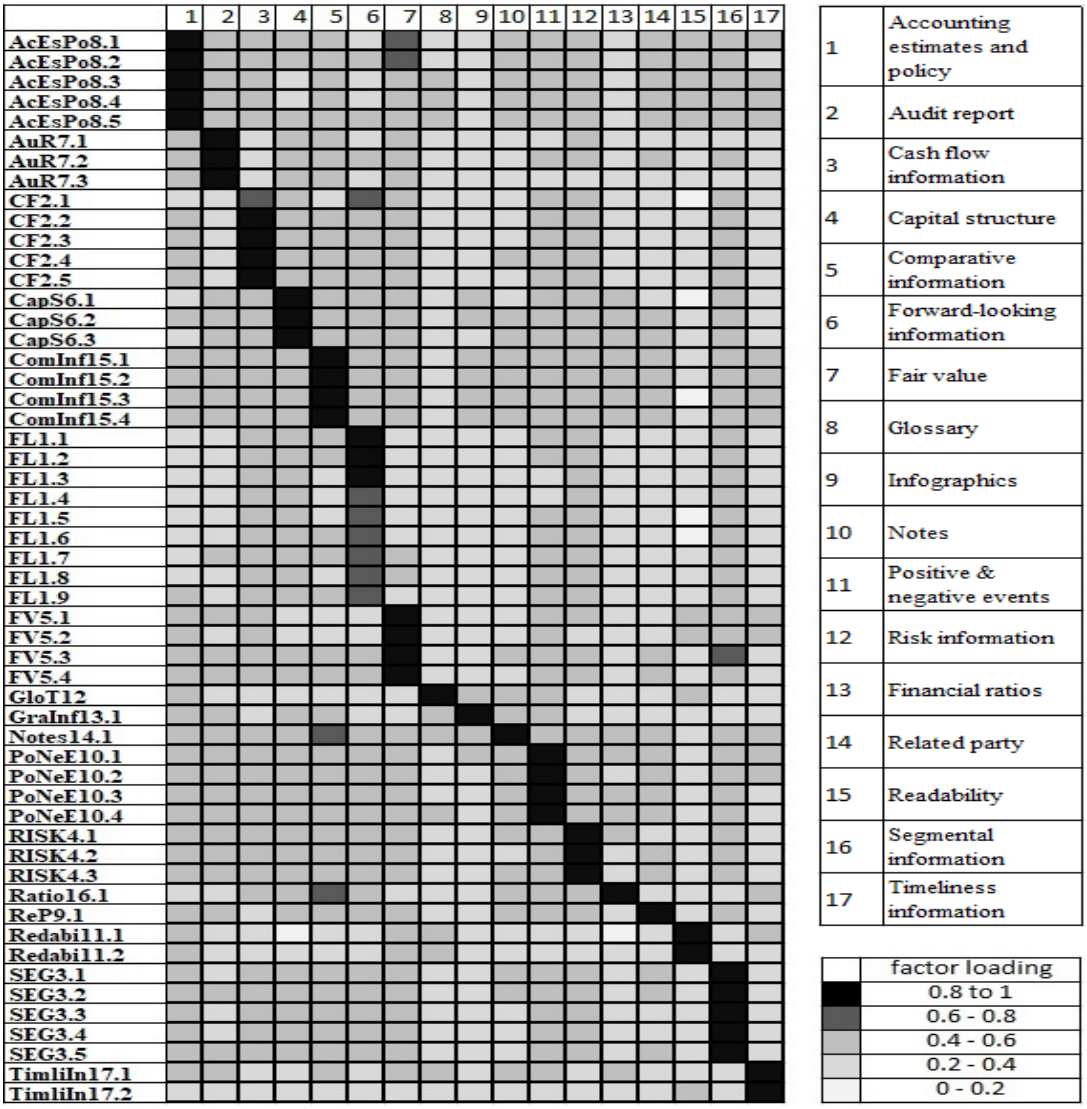


Figure 8-2 – PLS path model developed using SmartPLS and partially abridged variables denominations

Based on the PLS algorithm in my path model, Table 8-1 shows a heat map for the factor loadings and cross-loadings of the information items. Visual inspection of the table indicates that the highest factor loadings of the 54 sub-information items load onto the respective 17 information dimensions and provides preliminary evidence that the correlations are strong(est) between the sub-information items and the respective 17 information dimensions.

Table 8-1 – Heat map based on cross-loadings of 54 sub-information items to 17 information dimensions. Results from confirmatory factor analysis.



For a more robust evaluation of reflective measurement models, I followed Hair Jr et al. (2016, p. 105-106) who suggest the following statistical measures: *convergent validity* (using indicator reliability and average variance extracted), *internal consistency* (using Cronbach's alpha and composite reliability) and *discriminant validity* (Fornell-Larcker and HTMT criterion). I discuss these three concepts in turn below.

8.3.1 Convergent validity and internal consistency

Convergent validity explains "the extent to which a measure correlates positively with alternative measures of the same construct" (Hair Jr et al., 2016, p. 112; Hair, Black, Babin, & Anderson, 2010). Hair Jr et al. (2016) states that the items that are indicators (measures) of a specific reflective construct should share a high proportion of variance. They suggest using the outer loadings of items and the Average Variance Extracted (AVE) to evaluate the convergent validity. A common "rule of thumb is that standardize outer loadings should be 0.708 or higher" (Hair Jr et al., 2016, p. 113). The size of the outer loading is also commonly called indicator reliability. High outer loadings on a construct show that the associated indicators have much in common, which is captured by the construct. AVE, which is defined as the mean value of the squared loadings of the indicators associated with the construct, should be 0.50 or higher for convergent validity to be considered acceptable (Hair Jr et al., 2016, p. 115). If so, the construct describes more than half of the variance of its indicators.

Outer loading and AVE statistics are presented in Table 8-2. As per the PLS-SEM algorithm of the initial estimation of a path model, the outer loadings of all the 54 sub-information items are above the threshold value of 0.708. This provides evidence of the commonality of 54 items for the allocated 17 constructs. Also, all the AVE statistics relating to first-order constructs are above the rule of thumb of 0.50. The appropriate level of outer loadings of indicators and AVE values of first-order constructs proposes that both the researcher (i.e., the questionnaire designer) and the survey respondents reach agreement on the set of items that measure (or belong to) each construct (Kock & Lynn, 2012).

Table 8-2 – Results from factor analysis using SmartPLS. (cf. Figure 8-2)

First-order constructs	Convergent validity					Internal consistency	
	Indicators	**Loadings**	**Indicators**	**Loadings**	**AVE**	**CR**	**CA**
Forward-looking information (FL01)	FL1.1	0.81	FL1.6	0.77	0.623	0.937	0.924
	FL1.2	0.82	FL1.7	0.78			
	FL1.3	0.82	FL1.8	0.78			
	FL1.4	0.78	FL1.9	0.75			
	FL1.5	0.79					
Cash flow information (CF02)	CF2.1	0.74	CF2.4	0.87	0.686	0.916	0.885
	CF2.2	0.85	CF2.5	0.81			
	CF2.3	0.86					
Segmental information (SEG03)	SEG3.1	0.89	SEG3.4	0.87	0.762	0.941	0.922
	SEG3.2	0.90	SEG3.5	0.83			
	SEG3.3	0.88					
Risk related information (RISK04)	RISK4.1	0.92	RISK4.3	0.92	0.850	0.944	0.912
	RISK4.2	0.93					
Measuring assets, liabilities and equity at fair value (FV05)	FV5.1	0.81	FV5.3	0.88	0.687	0.898	0.850
	FV5.2	0.81	FV5.4	0.82			
Capital structure (CapS06)	CapS6.1	0.91	CapS6.3	0.89	0.836	0.938	0.901
	CapS6.2	0.93					
Audit Report (AuR07)	AuR7.1	0.80	AuR7.3	0.81	0.680	0.864	0.765
	AuR7.2	0.86					
Accounting estimates and policies (AcEsPo08)	AcEsPo8.1	0.93	AcEsPo8	0.94	0.852	0.966	0.957
	AcEsPo8.2	0.92	AcEsPo8	0.91			
Related party disclosures (ReP09)	ReP9.1	1.00			1.000	1.000	1.000
Self-reported positive and negative events (PoNeE10)	PoNeE10.1	0.90	PoNeE10	0.89	0.788	0.937	0.911
	PoNeE10.2	0.89	PoNeE10	0.87			
Readability (Redabili11)	Redabi11.1	0.95	Redabi11	0.95	0.897	0.946	0.886
Glossary of terms (Gol12)	GloT12.1	1.00			1.000	1.000	1.000
The graphical information (GeaInf13)	GraInf13.1	1.00			1.000	1.000	1.000
Notes to financial statements (Notes)	Notes14.1	1.00			1.000	1.000	1.000
Comparative information (ComInf15)	ComInf15.	0.90	ComInf1	0.88	0.797	0.940	0.915
	ComInf15.	0.91	ComInf1	0.88			
Financial ratios (Ratio16)	Ratio16.1	1.00			1.000	1.000	1.000
Timely publishing of annual reports (Timliinf17)	TimliInf17.1	0.90	TimliInf17.2	0.84	0.756	0.861	0.680

Note: The criteria for the assessment of measurement models in first-order constructs are not applicable to single-item constructs (Hair Jr et al., 2016). Reliability of those items was assessed using criterion validity in the pre-test, test-retest, and pilot test, as discussed in Chapter 7.

Internal consistency is the next criterion for assessing the measurement model. A set of items must represent the same underlying construct for acceptable internal consistency. This is assessed using Cronbach's alpha (called either CA or α) and Composite Reliability (CR). CA provides an estimate of the reliability based on the inter-correlations of the observed indicator

variables (Hair Jr et al., 2016). Due to CA's limitations, it is technically more appropriate to apply a different measure of internal consistency, which is referred to as CR (Hair Jr et al., 2016)**.** For internal consistency to be considered acceptable, the coefficients of both CR and CA should be 0.70 or higher (Hair Jr et al., 2016).

The results in Table 8-2 show the CA and CR statistics: all the constructs record above 0.70 CA and CR except the CA for timely publishing annual reports, 0.680, which is marginally below 0.70. Overall, the CA and CR values indicate that the survey respondents agree that each set of the 54 sub-information items relate to the respective 17 information dimensions.

8.3.2 Discriminant validity

Discriminant validity is the next criterion for assessing a reflective measurement model. It shows the extent to which a construct is distinct from other constructs using heuristic standards, implying that a construct is unique and captures phenomena not represented by other constructs in the model (Hair Jr et al., 2016; Wasko & Faraj, 2005). In other words, it shows the extent to which the researcher (or questionnaire designer) and the survey respondents agree regarding the items that are associated with one particular construct and not with another construct (Kock & Lynn, 2012). The leading methods for assessing discriminant validity are the consideration of cross-loadings and the Fornell-Larcker criterion (Fornell & Larcker, 1981; Hair Jr et al., 2016; Henseler, Ringle, & Sarstedt, 2015).

According to the Fornell-Larcker criterion, the square roots of the AVE of any construct must be larger than the correlations shared between the construct and other constructs (Barclay, Higgins, & Thompson, 1995; Fornell & Larcker, 1981; Hair Jr et al., 2016). The Fornell-Larcker criterion statistics in Table 8-3 show that the diagonal values, which represent the

square roots of the AVE of constructs (17 items), are greater than the off-diagonal elements in the respective rows and columns, which represent the correlations shared between constructs (Fornell & Larcker, 1981). Consequently, the model satisfies the heuristic rule with regard to the Fornell-Larcker criterion.

The cross-loadings criterion explains that loadings of items on their corresponding constructs should be higher than their loadings on any other construct (Chin, 1998; Hair Jr et al., 2016). Providing initial support for discriminant validity, items loaded higher on their constructs than their cross-loadings with other constructs, as shown in Table 8-1. The table shows that all the loadings show a higher value for their respective constructs than cross-loadings to other constructs (this also holds true for the only construct CF2.1 which has two equally shaded boxes: the loading under factor 3 is 0.74, and under factor 6 is 0.64). Thus, the analysis of cross-loadings suggests that discriminant validity has been established in the measurement model.

Henseler et al. (2015) and Hair Jr et al. (2016) state that the performance of both cross-loadings and the Fornell-Larcker criterion assessments perform poorly on discriminant validity issues. Both references emphasize that, when two constructs are perfectly correlated, cross-loadings fail to indicate a lack of discriminant validity. Also, the Fornell-Larcker criterion performs very poorly when indicator loadings of the constructs under consideration differ only slightly (e.g., all indicator loadings vary between 0.60 and 0.80) (Hair Jr et al., 2016). They recommended the HeteroTrait-MonoTrait ratio (HTMT) of the correlations for assessing discriminant validity in variance-based SEM.

I used the HTMT values of the constructs to provide evidence of discriminant validity. Hair Jr et al. (2016, p. 118) explain that HTMT is "the ratio of the between-trait correlations to the within-trait correlations". It estimates what the true correlation between constructs would be if they were perfectly measured. The HTMT rule recognizes that there is a lack of discriminant validity between the constructs if the true correlation between two constructs is close to 1. Nevertheless, a threshold value of 0.90 has been suggested when constructs are conceptually more distinct. When constructs are conceptually similar, a more conservative threshold value of 0.85 is suggested (Hair Jr et al., 2016; Henseler et al., 2015). The HTMT values for all pairs of constructs are presented in Table 8-4, which shows that all HTMT values are lower than the conservative threshold value of 0.85 and indicates that my proposed FRQ measuring model passes discriminant validity tests.

In summary, the relationships between the 54 sub-information items (indicators) and 17 information dimensions (first-order constructs) satisfy all the convergent validity, internal consistency and discriminant validity conditions. After validating that the 54 indicators measure the 17 first-order constructs, the next step is to evaluate the measurement model with respect to second-order constructs, i.e., the 6 QCs.

Table 8-3 – Interconstruct Correlations: Fornell-Larcker Criterion for First-order Constructs

	ALE @FV	AccEs&Po	Au R	CF	Cap St	Cominf	FL	Glosa	Graphi	Notes	P&N ev	RParty	Ratio	Redabi	Risk	SEG	Timelines
ALE @FV	**0.83**																
AccEs&Po	0.65	**0.92**															
Au R	0.53	0.58	**0.82**														
CF	0.60	0.48	0.42	**0.83**													
Cap St	0.55	0.43	0.55	0.54	**0.91**												
Com inf	0.49	0.47	0.52	0.51	0.61	**0.89**											
FL	0.48	0.43	0.45	0.61	0.56	0.51	**0.79**										
Glosa	0.38	0.43	0.36	0.30	0.30	0.37	0.33	**1.00**									
Graphi	0.37	0.41	0.42	0.32	0.45	0.53	0.39	0.44	**1.00**								
Notes	0.45	0.50	0.43	0.42	0.45	0.62	0.42	0.43	0.44	**1.00**							
P&N ev	0.53	0.55	0.50	0.52	0.52	0.59	0.52	0.41	0.43	0.52	**0.89**						
R Party	0.48	0.59	0.51	0.39	0.44	0.47	0.40	0.28	0.36	0.42	0.52	**1.00**					
Ratio	0.35	0.34	0.39	0.43	0.50	0.62	0.40	0.32	0.39	0.43	0.48	0.35	**1.00**				
Redabi	0.53	0.57	0.38	0.29	0.22	0.29	0.26	0.44	0.34	0.34	0.36	0.39	0.20	**0.95**			
Risk	0.58	0.48	0.51	0.60	0.58	0.49	0.60	0.34	0.39	0.43	0.56	0.43	0.43	0.26	**0.92**		
SEG	0.63	0.58	0.44	0.64	0.52	0.50	0.58	0.34	0.37	0.47	0.56	0.46	0.37	0.35	0.59	**0.87**	
Timeli inf	0.45	0.44	0.42	0.36	0.37	0.47	0.33	0.38	0.37	0.42	0.42	0.39	0.43	0.43	0.37	0.40	**0.87**

Table 8-4 – Heterotrait-Monotrait Ratio (HTMT) for First-order Constructs

	ALE @FV	AccEs&Po	Au R	CF	Cap St	Cominf	FL	Glosa	Graphi	Notes	P&N ev	RParty	Ratio	Redabi	Risk	SEG	Timelines
ALE @FV																	
AccEs&Po	0.71																
Au R	0.65	0.68															
CF	0.68	0.52	0.51														
Cap St	0.61	0.47	0.67	0.60													
Com inf	0.55	0.51	0.62	0.57	0.67												
FL	0.53	0.45	0.53	0.67	0.62	0.55											
Glosa	0.41	0.45	0.41	0.32	0.32	0.38	0.34										
Graphi	0.39	0.42	0.47	0.34	0.47	0.55	0.41	0.44									
Notes	0.48	0.52	0.49	0.44	0.48	0.65	0.43	0.43	0.44								
P&N ev	0.60	0.58	0.59	0.58	0.58	0.65	0.57	0.43	0.46	0.55							
R Party	0.51	0.60	0.57	0.41	0.46	0.49	0.42	0.28	0.36	0.42	0.54						
Ratio	0.38	0.35	0.44	0.46	0.53	0.65	0.42	0.32	0.39	0.43	0.50	0.35					
Redabi	0.63	0.63	0.46	0.33	0.25	0.32	0.29	0.47	0.37	0.36	0.39	0.42	0.21				
Risk	0.65	0.52	0.60	0.67	0.64	0.54	0.66	0.36	0.41	0.45	0.61	0.45	0.45	0.29			
SEG	0.70	0.62	0.52	0.71	0.57	0.54	0.63	0.35	0.39	0.49	0.62	0.48	0.38	0.39	0.65		
Timeli inf	0.60	0.54	0.57	0.47	0.46	0.59	0.41	0.45	0.45	0.50	0.53	0.46	0.52	0.56	0.46	0.50	

8.4 Evaluation of the measurement model – First and second-order constructs

In this second stage, the relationship between the 17 information dimensions (first-order constructs) to assess 6 QCs (second-order constructs) is statistically justified. Each of the 17 first-order constructs is associated with one of the six second-order constructs (cf. Figure 8-3). Since the second-order constructs were represented by all the items of their first-order constructs in the hierarchal model, the reliability and validity were not examined at this stage. Using the repeated indicator approach, the second-order constructs were represented by the factor scores of their associated first-order constructs obtained from the path model analysis in Section 8.3.1. The relationship between the two sets of the construct is formative; thus, the arrows point from the first-order constructs to the second-order constructs.

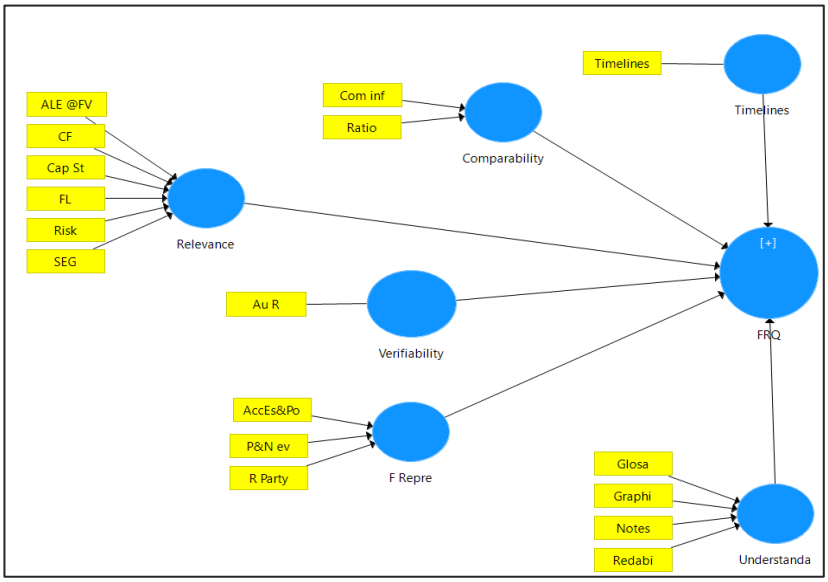


Figure 8-3 – Second-order model formative model and partially abridged variables denominations

In this section, I validate the formative model and use the Variance Inflation Factor (VIF), which addresses multicollinearity, and the significance of the outer weights,[46] as recommended

[46] Outer weights: are the results of a multiple regression of a construct on its set of indicators. Weights are the primary criterion to assess each indicator's relative importance in formative measurement models Hair Jr et al., 2016, p. 323).

by Hair Jr et al. (2016, p. 105-106). Collinearity (or multicollinearity) denotes to a high level of correlation between two formative items. Hair Jr et al. (2016, p. 142) note that "high levels of collinearity between formative items result to increase standard errors and thus reduce the ability to detect the significance of outer weights of items", resulting in a biased estimation of weights and possibly a reversal of their signs. Even though high correlations between items are supposed to exist in reflective measurement models, they are not expected in formative measurement models (Petter et al., 2007). Thus, VIF is an important measure of collinearity in the context of PLS-SEM, and values of 5 and higher are an indication of the collinearity problem (Hair Jr et al., 2016). Table 8-5 shows the VIF values for the second-order constructs: they are considerably lower than the threshold of 5, indicating that collinearity between the dimensions does not pose a concern for my research.

Table 8-5 – Validation of the second-order model

Construct	Dimensions	Variance Inflation Factor (VIF)	Outer weights (Outer loadings)	*t*-value	*p*-value	Significance ($p < 0.05$)
Relevance	**FL**	2.208	0.174 (0.768)	4.897	0.000	Yes
	ALE @FV	2.060	0.315 (0.839)	9.241	0.000	Yes
	CF	2.233	0.105 (0.779)	2.976	0.003	Yes
	Cap St	1.845	0.266 (0.801)	7.761	0.000	Yes
	SEG	2.235	0.207 (0.815)	5.459	0.000	Yes
	Risk	2.146	0.174 (0.802)	4.668	0.000	Yes
Faithful representation	**AccEs&Po**	1.746	0.447 (0.860)	11.266	0.000	Yes
	R Party	1.672	0.232 (0.757)	6.105	0.000	Yes
	P&N ev	1.544	0.506 (0.870)	14.030	0.000	Yes
Understandability	**Redabi**	1.310	0.292 (0.662)	6.876	0.000	Yes
	Glosa	1.469	0.182 (0.680)	3.387	0.000	Yes
	Graphi	1.401	0.342 (0.748)	7.564	0.000	Yes
	Notes	1.382	0.510 (0.838)	11.380	0.000	Yes
Comparability	**Ratio**	1.760	0.296 (0.789)	6.248	0.000	Yes
	Com inf	1.641	0.788 (0.973)	20.641	0.000	Yes
Verifiability	**Au R**	1.925	1.000 (1.000)	0.000	-	-
Timeliness	**Timelines Inf**	1.610	1.000 (1.000)	0.000	-	-

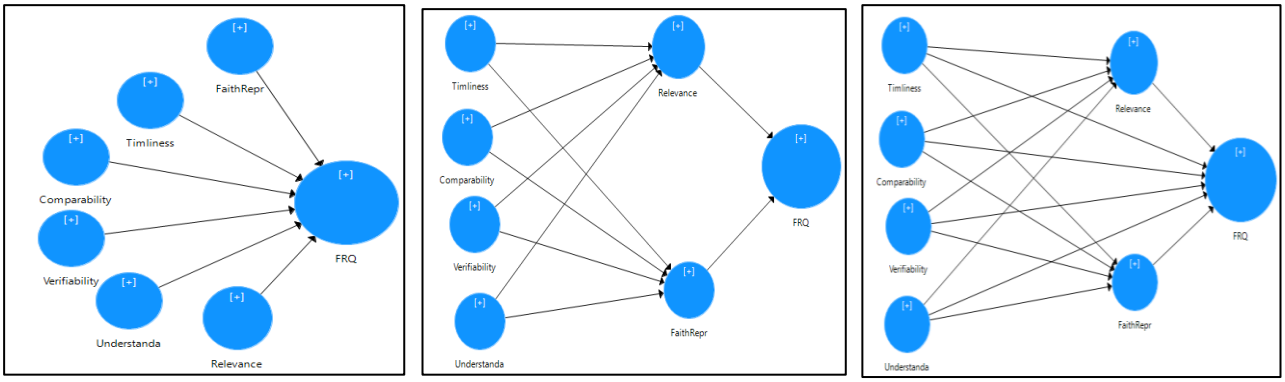
The second measure of a formative model, as Hair Jr et al. (2016) suggest, is the significance of the outer weights of the formative items. If an outer weight is significantly different from zero, I reject the NULL of no relationship, that is, an information dimension's relative contribution is large enough to be associated with that construct (Hair Jr et al., 2016). I used the bootstrapping procedure in SmartPLS 3.2.8 (5000 repetitions) to examine the outer weights. Table 8-5 shows the statistics for the outer weights, and all are statistically significantly larger than zero. Note that outer weights are not presented for the constructs which have only one item, i.e., audit report and timeliness. These items were assessed only using the VIF values.

In summary, the PLS path-model statistics demonstrate that the 17 information dimensions (first-order constructs), which can be measured by the 54 sub-information items (indicators), are suitable to represent the 6 QCs (second-order constructs). In the next stage of my analysis, I examine different constellations of how the 6 QCs best assess FRQ a (third-order construct).

8.5 Use of QCs to measure FRQ

I now examine how to connect the 6 QCs (second-order construct) to assess the FRQ (third-order construct). The motivation has been established earlier (cf. Section 1.2) about the different graphical representations in textbooks of how the QCs combine, the inherent inter-relatedness of QCs, and the IASB's classification of enhancing and fundamental QCs. Previous studies (cf. Section 2.4) neither examine the relative contribution of different QCs to FRQ nor what would be an appropriate, weighted mix of QCs to obtain the best FRQ measurements for entities' financial reporting. Despite the IASB suggesting that the fundamental QCs are more important than the enhancing QCs, the literature (Section 4.3) provides inconclusive results on the perceived (user perspective) the importance of QCs. These mixed observations suggest that different contexts and different users may consider different QCs directly or indirectly to improve

usefulness. Thus, I analyse three possible ways of how to combine the QCs to assess FRQ, as shown in Figure 8-4. Each model is discussed separately in the following sections.



Model 1 Model 2 Model 3

Figure 8-4 – Recombination of QCs for measuring FRQ and partially abridged variables denominations

8.5.1 Model 1 – QCs directly contribute to FRQ

While the QCs embody attributes of information that would not have changed over decades, even centuries, the IASB Conceptual Frameworks over the last 30 years have produced a number of different combinations, as well as different types of QCs to measure the decision usefulness of the information. Each of the Conceptual Frameworks stipulates that QCs are the attributes that make the information provided in financial statements useful to users. Absent any explicit discussion on how exactly the arrangement of the QCs ought to be, Model 1 implements the idea that each QC contributes directly to FRQ.

The rationale for Model 1 (cf. Figure 8-4) aligns well with the IASC (1989) Conceptual Framework, which introduced four principal QCs – relevance, reliability, understandability and comparability – all four of which directly and independently would improve the usefulness of the information. This is further supported by the literature of assessing the quality of information

using QCs. As further justification, several studies (e.g., Parry & Groves, 1990; Davies & Whittred, 1980; Jonas & Blanchet, 2000; McDaniel et al., 2002; Wolk et al., 1992) focused on individual QCs and considered them as useful indicators (independent measures) in presenting information to users.

To derive the contribution of each QC towards FRQ, I use the factor scores which associate the second-order constructs (QCs) with the third-order construct (FRQ) obtained from the path model analysis in Section 8.4. Recall that for the second-order formative model, the VIF value and the significance of outer weights are used to evaluate the model. Thus, I use the same statistics here to evaluate Model 1. Kock & Lynn (2012) and Kock (2015, p. 7) stated that "a VIF greater than 3.3 is an indication of pathological collinearity and also an indication that a model may be contaminated by common method bias". Hair Jr et al. (2016) suggest VIF values of 5 and higher are an indication of the collinearity problem. In my research, all VIF values shown in Table 8-6 are below 3.3, and the outer weights of all the QCs are statistically significant in terms of contributing to FRQ.

Table 8-6 – Descriptive statistics for Model 1

Path	**Variance Inflation Factor (VIF)**	**Outer weights (relative contribution)**	***t* Value**	***p*-value**	**Significance ($p < 0.05$)?**
Relevance →FRQ	2.835	0.220	42.976	0.000	Yes
Faithful Rep→FRQ	3.073	0.222	42.495	0.000	Yes
Comparability→FRQ	2.191	0.205	48.991	0.000	Yes
Understandability→FRQ	2.458	0.210	24.043	0.000	Yes
Verifiability→FRQ	1.826	0.191	37.171	0.000	Yes
Timeliness→FRQ	1.531	0.172	27.690	0.000	Yes

According to Table 8-6, the highest relative contribution[47] in terms of outer weights is obtained for faithful representation, and all 6 QCs contribute significantly to FRQ. Accordingly, the following formula can be obtained (cf. Figure 8-5), which represents Model 1, and the contribution (outer weights) of each QC towards FRQ:

$$FRQ_{it} = 0.220R_{it} + 0.222F_{it} + 0.205C_{it} + 0.210U_{it} + 0.191V_{it} + 0.172T_{it} \qquad (8.1)$$

where FRQ_{it} is measured for firm i at time t, and $R_{it}, F_{it}, C_{it}, U_{it}, V_{it}\ and T_{it}$ stand for quality scores of QCs (i.e., relevance, faithful representation, comparability, understandability, verifiability and timeliness) derived from the content analysis of annual reports of firm i in year t. For the reason of clarity, I drop the two indices i and t in future expressions.

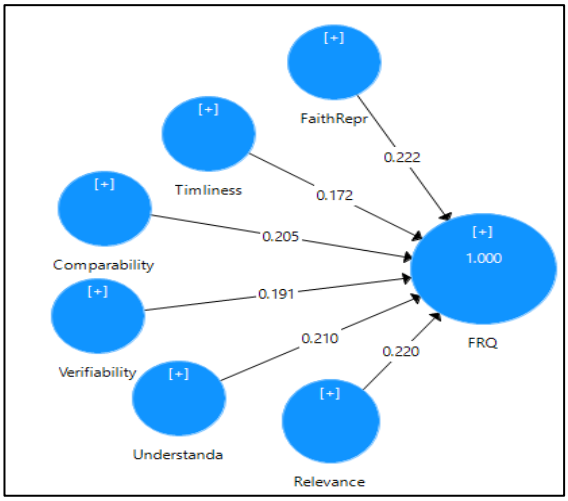


Figure 8-5 – Analysis result for Model 1 using SmartPLS structural equation modelling and partially abridged variables denominations.

[47] Relative contribution: "is the unique importance of each indicator by partializing the variance of the formatively measured construct that is predicted by the other indicators. An item's relative contribution is provided by its weight" (Hair Jr et al., 2016, p. 326).

To produce an FRQ index that is independent of the number of measures that are chosen to determine it, I scale the contributions in Expression 8.1 to 100% and obtain a relative measure of FRQ ($rFRQ$), thus;

$$rFRQ = \beta_{1RFRQ} * R + \beta_{2FFRQ} * F + \beta_{3CFRQ} * C + \beta_{4UFRQ} * U + \beta_{5VFRQ} * V + \beta_{6TFRQ} * T \qquad (8.2)$$

where, β = (percentage) relative contribution of each QC's to FRQ, scaled into one ($\sum_i \beta_i = 1$), $R, F, C, U, V and\ T$ are the respective quality scores of QCs derived from the content analysis of the annual report of firm i in year t.

Based on percentage relative contribution of each QCs, the following Expression (8.3) can now be used to measure FRQ in practical settings, which I have used in Chapter 9.

$$rFRQ_{it} = (0.180R + 0.182F + 0.168C + 0.172U + 0.157V + 0.141T) \qquad (8.3)$$

8.5.2 Model 2 – Classification of fundamental and enhancing QC to FRQ

Model 2 is in line with the classification of QCs as discussed by the 2010 IASB Conceptual Framework: The 6 QCs are classified as two *fundamental* QCs (relevance and faithful representation) and four *enhancing* QCs (comparability, understandability, verifiability, and timeliness). These enhancing characteristics are complementary to fundamental QCs (Loftus et al., 2018, p. 20). The 2010 version of Conceptual Framework, also, states that information must be both relevant and faithfully represented if it is to be useful, and the usefulness of financial information is enhanced if it is comparable, verifiable, timely and understandable (IASB, 2010, p. 16; 2018, p. 14). On the other hand, Conceptual Framework (2010) states that the enhancing QCs, "either individually or as a group, cannot make information useful if that information is irrelevant or not faithfully represented" (IASB, 2010, p. 19; 2018, p. 17). Thus, absent any

guidelines as to which enhancing QC is associated with which the two fundamental QCs, Model 2 is used to discover the contributions of the enhancing to FRQ indirectly through the fundamental QCs (cf. Figure 8-4, Model 2).

Table 8-7 shows the third-order model evaluation statistics for Model 2. All the VIF values are within the acceptable criteria, i.e., below 3.3 (cf. Sections 8.4 and 8.5.1), and all the outer weights are significant except for timeliness which contribution to FRQ via relevance is not statistically significant.

Table 8-7 – Model 2 – Third-order descriptive statistics

Path	Variance Inflation Factor (VIF)	Outer weights	*t* value	*p*-value	Significance ($p < 0.05$)?
Comparability→Relevance	1.911	0.356	7.017	0.001	Yes
Comparability→Faithful representation		0.173	3.319	0.000	Yes
Understandability→Relevance	2.037	0.218	4.531	0.000	Yes
Understandability→Faithful representation		0.414	9.909	0.000	Yes
Verifiability→Relevance	1.547	0.306	6.622	0.000	Yes
Verifiability→Faithful representation		0.275	5.760	0.000	Yes
Timeliness→Relevance	1.516	0.062	1.474	0.141	No
Timeliness→Faithful representation		0.093	2.263	0.024	Yes
Faithful Representation →FRQ	2.863	0.518	18.287	0.000	Yes
Relevance→FRQ	2.863	0.477	16.950	0.000	Yes

As per Table 8-7, faithful representation provides the highest relative contribution to FRQ, followed by relevance. Of the enhancing QCs, comparability is the strongest contributor to relevance (0.356), which one may interpret as evidence that information of a more comparable nature will help improve relevance. As noted above, timeliness is not significant in terms of contributing to relevance, which is perhaps surprising because relevance is usually associated with timely (and not outdated) information. As to faithful representation, understandability is the highest contributor (0.414). Again, this result is perhaps surprising, because traditionally it is verifiability that is often associated with faithful representation.

The following relationships for assessing FRQ with Model 2 can be drawn based on the outer weights (cf. Table 8-7 and Figure 8-6) derived in the structural modelling context:

$$R = 0.356C + 0.218U + 0.306V \tag{8.4}$$

(Timeliness (T) is not significant and not included in the formula)

$$F = 0.173C + 0.414U + 0.275V + 0.093T \tag{8.5}$$

$$FRQ = 0.477R + 0.518F \tag{8.6}$$

where, FRQ is measured for firm i at time t, and $R, F, C, U, V\ and\ T$ stand for quality scores of QCs (i.e., relevance, faithful representation, comparability, understandability, verifiability and timeliness) derived from the content analysis of the annual report of firm i in year t.

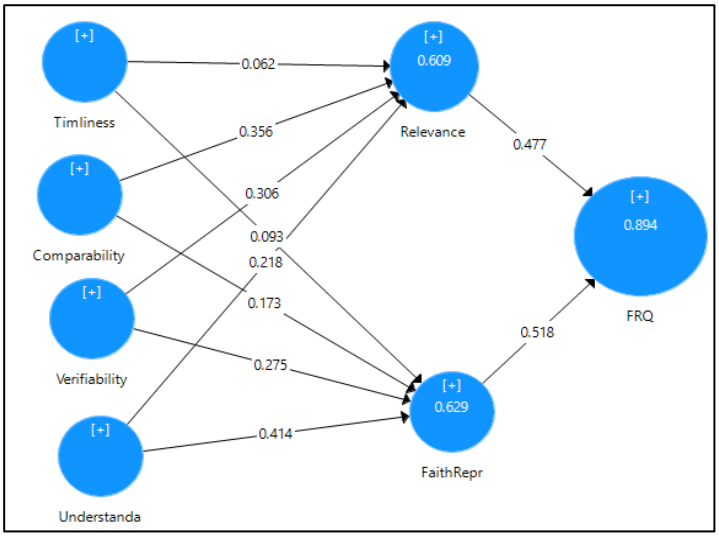


Figure 8-6 – Analysis result for Model 2 using SmartPLS structural equation modelling and partially abridged variables denominations

Model 2 represents the level of FRQ of a company for a given year as to be calculated through a sum of direct and indirect contributions. The direct contributions are made by the fundamental QCs shown in Expression (8.6), and the indirect contributions are made by the enhancing QCs via the fundamental QCs, shown in Expressions (8.4) and (8.5). It thus would be

wrong to algebraically replace in Expression (8.6) the R and F with Expressions (8.4) and (8.5), respectively. The correct interpretation of Expressions (8.4), (8.5) and (8.6) thus obtains as below.

FRQ = (direct contributions) + (indirect contribtions through relevance and faithful representation)

$$\begin{aligned} FRQ &= (0.477R + 0.518F) + [0.477\,(0.356C + 0.218U + 0.306V)] \\ &\quad + [(0.518\,(0.173C + 0.414U + 0.257V + 0.093T)] \\ FRQ &= (0.477R + 0.518F) + (0.170C + 0.104U + 0.146V) \\ &\quad + (0.090C + 0.214U + 0.142V + 0.048T) \end{aligned} \tag{8.7}$$

To produce an FRQ that is independent of the number of measures that determine it, I scale to 100% the contributions in Expression (8.7) to obtain a relative measure of contributions towards FRQ, thus;

$$\begin{aligned} rFRQ = \; & (\beta_{1RFRQ} * R + \beta_{2FFRQ} * F) + (\beta_{3CRFRQ} * C + \beta_{4URFRQ} * U + \beta_{5VRFRQ} * V) \\ & + (\beta_{6CFFRQ} * C + \beta_{7UFFRQ} * U + \beta_{8VFFRQ} * V + \beta_{9TFFRQ} * T) \end{aligned} \tag{8.8}$$

where, β_{1-9} is the percentage relative contribution of each of QC to FRQ or through fundamental QC, scaled into one ($\sum_i \beta_i = 1$), and R, F, C, U, V and T are the respective quality scores of QCs derived from the content analysis of annual reports of firm i in year t. (e.g., β_{3CRFRQ} is the percentage relative contribution of comparability to FRQ through relevance).

Based on the percentage relative contribution of each QC, the following Expression (8.9) can now be used to measure FRQ in practical settings, which I have used in Chapter 9.

$$\begin{aligned} FRQ_{it} &= (0.250R + 0.271F) + (0.089C + 0.054U + 0.076V) \\ &\quad + (0.047C + 0.113U + 0.075V + 0.025T) \\ FRQ_{it} &= (0.250R + 0.271F + 0.136C + 0.167U + 0.151V + 0.025T) \end{aligned} \tag{8.9}$$

8.5.3 Model 3 – Direct and indirect impact of QCs to FRQ

The information contains various qualitative features. These features, i.e., QCs, are used for different decisions in different contexts. For annual reporting to be useful over a broad decision-making range, all 6 QCs will contribute to making annual reports useful sources of information. Therefore, in Model 3 (cf. Figure 8-4), I test the *direct*, and *indirect*, contributions of all 6 QCs to FRQ. This most general model of the three is also motivated because it combines the features of the 1989 framework of the IASB (Model 1) and the 2010 and 2018 frameworks (Model 2). Another useful aspect that can be tested with Model 3 is the understanding about which of the two fundamental QCs are meant to be enhanced by the four enhancing QCs. The IASB is silent on this issue. Furthermore, as discussed in Section 4.3, the results of the previous research about the importance of QCs as features to make information useful varied from one study to another.

Table 8-8 shows the third-order model evaluation statistics. Accordingly, all VIF values are within the acceptable criteria, i.e., < 5, and if the more stringent benchmark of 3.3 is used, only relevance (3.50) and faithful representation (3.637) are marginally above. All the outer weights are statistically significant, though timeliness is not significant in measuring FRQ indirectly through relevance (cf. Section 8.5.2). However, timeliness was significant with respect to measuring FRQ indirectly through faithful representation.

Table 8-8 – Model 3 – Third-order statistics

Path	Variance Inflation Factor (VIF)	Outer weights	*t*-value	*p*-value	Significance ($p < 0.05$)?
Comparability →Relevance	1.931	0.360	7.183	0.000	Yes
Comparability→Faithful representation		0.171	3.271	0.001	Yes
Comparability →FRQ	2.265	0.205	50.205	0.000	Yes
Understandability→Relevance	2.055	0.213	4.409	0.000	Yes
Understandability→Faithful representation		0.410	9.557	0.000	Yes
Understandability→FRQ	2.505	0.210	47.804	0.000	Yes
Verifiability→Relevance	1.546	0.310	6.829	0.000	Yes
Verifiability→Faithful representation		0.278	5.858	0.000	Yes
Verifiability→FRQ	1.847	0.191	37.111	0.000	Yes
Timeliness→Relevance	1.211	0.059	1.447	0.147	No
Timeliness→Faithful representation		0.096	2.315	0.023	Yes
Timeliness→FRQ	1.536	0.172	28.995	0.000	Yes
Relevance→FRQ	3.500	0.220	43.242	0.000	Yes
Faithful Representation→FRQ	3.637	0.222	44.336	0.000	Yes

The relative contributions of all QCs are shown in Figure 8-7. Considering the relative contributions of the enhancing QCs, only timeliness records a higher direct contribution to FRQ than indirect contributions via relevance and faithful representation, both of which are fairly weak. Thus, the evidence presented for timeliness does not warrant this QC to be called 'enhancing', but rather 'fundamental'.

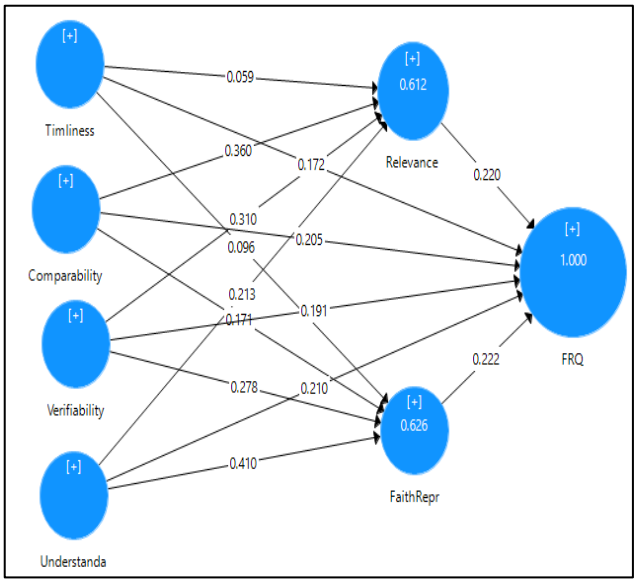


Figure 8-7 – Analysis result for Model 3 using SmartPLS structural equation modelling and partially abridged variables denominations

Out of all the paths in Model 3, understandability contributes the highest in measuring FRQ: indirectly via faithful representation (0.410) and directly (0.210). It shows that understandability contributes relatively more than other QCs to improve the usefulness of the information. Further, relevance is strongly enhanced by comparability, which records an outer weight of 0.360. This provides evidence that if the information is comparable with previous years, industry or similar entities, it will improve the applicability of that information in investment and lending decision-making.

Putting the modelling results for the relative contributions (c.f. Table 8-8 and Figure 8-7 of QCs to FRQ into algebraic form, I obtain;

$$R = 0.360C + 0.213U + 0.310V \tag{8.10}$$

(Timeliness (T) is not significant and not included in the formula)

$$F = 0.171C + 0.410U + 0.278V + 0.096T \tag{8.11}$$

$$FRQ = 0.220R + 0.222F + 0.205C + 0.210U + 0.191V + 0.172T \tag{8.12}$$

where FRQ is measured for firm i at time t, and $R, F, C, U, V\ and\ T$ stand for quality scores of each QC (i.e., relevance, faithful representation, comparability, understandability, verifiability and timeliness) derived from the content analysis of the annual report of firm i in year t.

The derivation of the representation of Expressions (8.10), (8.11) and (8.12) for practical applications follows according to the discussion in Section 8.5.2. Thus,

FRQ = (direct contributions) + (indirect contribtions through relevance and faithful representation)

$$\begin{aligned} FRQ = {} & (0.220R + 0.222F + 0.205C + 0.210U + 0.191V + 0.172T) \\ & + [0.220(0.360C + 0.213U + 0.310V)] \\ & + \ 0.222(0.171C + 0.410U + 0.278V + 0.096T)] \end{aligned} \tag{8.13}$$

$$\begin{aligned} FRQ = {} & (0.220R + 0.222F + 0.205C + 0.210U + 0.191V + 0.172T) \\ & + (0.079C + 0.047U + 0.068V) \\ & + (0.038C + 0.091U + 0.062V + 0.021T) \end{aligned}$$

To produce an FRQ that is independent of the number of measures that determine it, I scale to 100% the contributions in Expression (8.13) to obtain a relative measure of contributions towards FRQ, thus;

$$\begin{aligned} rFRQ = (&\beta_{1RFRQ} * R + \beta_{2FFRQ} * F + \beta_{3CFRQ} * C + \beta_{4UFRQ} * U + \beta_{5VFRQ} * V \\ &+ \beta_{6TFRQ} * T) + (\beta_{7CRFRQ} * C + \beta_{8URFRQ} * U + \beta_{9VRFRQ} * V) \\ &+ (\beta_{10CFFRQ} * C + \beta_{11UFFRQ} * U + \beta_{12VFFRQ} * V + \beta_{13TFFRQ} * T) \end{aligned} \quad (8.14)$$

where, β_{1-6} is (percentage) relative contribution of each QC's directly to FRQ and β_{7-13} is (percentage) relative contribution of each QC's to FRQ through fundamental QC, scaled into one ($\sum_i \beta_i = 1$), $R, F, C, U, V and\ T$ are the respective quality scores of QCs derived from the content analysis of annual reports of firm i in year t.

Based on percentage relative contribution of each QCs, the following Expression (8.15) can now be used to measure FRQ in practical settings, which I have used in Chapter 9.

$$\begin{aligned} rFRQ = (&0.135R + 0.137F + 0.126C + 0.129U + .117V + .106T) \\ &+ (0.049C + 0.029U + 0.042V) \\ &+ (0.023C + 0.056U + 0.038V + 0.013T) \end{aligned} \quad (8.15)$$

$$rFRQ = (0.135R + 0.137F + 0.198C + 0.214U + 0.197V + 0.119T)$$

8.6 Summary and discussion

My methodology to develop, validate and evaluate an FRQ measurement model includes a hierarchical analysis framework, PLS-SEM, and data obtained from 449 Sri Lankan survey participants. The hierarchy consists of 54 observable sub-information items which were used as indicators for 17 information dimensions (first-order constructs), which in turn were used to represent 6 QCs (second-order constructs). Ultimately, the 6 QCs are used to measure FRQ

(third-order construct). The advantage of structural modelling is that, while observable data are fed to only the lowest level of the hierarchy, the path modelling obtains derived measures for the strength of the relationships between the latent constructs of higher orders. Importantly, the survey participants did not know the structure of the path model, i.e., they were not informed how the sub-information items and information dimensions in Section D of the survey related to the QCs and FRQ. Considering the skewed responses obtained (Table 7-34) on virtually all questions in Section D, the confirmatory factor analysis that was conducted to validate the factor structure between the first two levels obtained a strong result as shown by the heat map of Table 8-1. The test statistics show that all the criteria for assessing a reflective measurement model were satisfactorily met to demonstrate the reliability and validity of the measures of the reflective first-order constructs. The constructs' indicators had high outer loadings (>0.70) and AVE values of more than 0.50, fulfilling the requirements for convergent validity. For internal consistency, I obtained values for CA above the heuristic cut-off values of 0.70 used in the literature, and thus conclude that constructs are internally consistent. Finally, discriminant validity was assessed using cross-loadings, the Fornell-Larcker criterion, and HTMT. All three tests produced values within recommended benchmarks that allow me to conclude that the 54 sub-information items are reliable and valid measures for a respective information dimension.

I then evaluated the strength of the relationships between the latent constructs of the higher-order levels in the hierarchy. Firstly, I mapped of the 17 information dimensions onto the 6 QCs, and then I have devised three models, Model 1, Model 2 and Model 3 to test various postulated or assumed representations (IASB) of how QCs ought to be arranged to produce useful FRQ. These relationships were evaluated within formative measurement models: VIF values and outer weights were employed. The test statistics for the VIF values are below the heuristic benchmark 5, and outer weights are significant at the 5% level. Thus, I conclude that the 17

information dimensions are reliable and valid indirect measures for the 6 QCs. The same conclusion applies to the relationships between the highest two levels for all three models: all VIF values are below 5, and the outer weights are significant at the 5% level except the timeliness-relevance relationship in Models 2 and 3. However, in Model 3, timeliness is significant directly to FRQ.

Across the hierarchy, the general conclusion from the path modelling is that the 54 sub-information items can be used to measure FRQ. A further contribution is that I derived the relative strength between any of the indicators and constructs and their next higher hierarchy level. At the highest level between the QCs and FRQ, Expressions 8.3, 8.9 and 8.15, which represent the Models 1, 2 and 3, respectively, present that explanatory strength numerically. While the relationships in the three models are statistically significant and structurally valid, each of them is conceptually different and highlights a particularly relevant aspect in relation to the Conceptual Frameworks of the IASB and the academic literature.

From Model 1, which tests direct relationships between the QCs and FRQ, I learn that the significant outer weights to FRQ provided by all the QCs give evidence that Sri Lankan users perceive all QCs to i) directly contribute to improving the FRQ, and ii) do so at various degrees: for example, faithful representation contributes most strongly to FRQ but only slightly more than of relevance and understandability. These results call in to question the decision by the IASB in the 2010 and 2018 Conceptual Frameworks to classify the QCs into two groups, fundamental and enhancing.

The next step was to apply IASB's 2010 and 2018 Conceptual Framework classification of QCs into fundamental and enhancing, which is embodied by Model 2. All the enhancing QCs

significantly, but to various degrees, contribute to both relevance and faithful representation to FRQ except timeliness to relevance. However, this model is restricted in that it only allows the enhancing QCs to contribute indirectly to FRQ via the two fundamental QCs. To alleviate this constraint, I have tested a third Model (3) in which the enhancing QCs may contribute directly and indirectly (as mediators) to FRQ. The test statistics show that enhancing QCs, as mediators to fundamental QCs, provide significant contributions (based on outer weights) to improve FRQ. Also, all the enhancing QCs individually and directly report statistically significant contributions to FRQ providing evidence that the users perceived that the enhancing QCs improve the FRQ independently from fundamental QCs. This finding is supported by Kieso, Weygandt, & Warfield (2019, p. 2-7) who state that "…qualitative characteristics are either fundamental or enhancing characteristics, depending on how they affect the decision usefulness of the information. Regardless of classification, each qualitative characteristic contributes to the decision usefulness of financial reporting information." Thus, based on the results of three models, it is concluded that the usefulness of information can be increased by QCs irrespective of their classification.

Consider now the specific wordings by the IASB on the topics discussed in my research. The IASB Conceptual Framework states that the enhancing QCs support fundamental QCs: "Comparability, verifiability, timeliness and understandability are qualitative characteristics that enhance the usefulness of information that both is relevant and provides a faithful representation of what it purports to represent. The enhancing QCs may also help determine which of two ways should be used to depict a phenomenon if both are considered to provide equally relevant information and an equally faithful representation of that phenomenon" (IASB, 2018, para. 2.23). My results show that within the Sri Lankan context, the enhancing QCs not only 'enhance' FRQ, but they directly contribute to it. The formulation about 'providing equally' may also be revisited

in light of the results presented here: the derived percentage contributions of the QCs towards FRQ are not equally weighted.

Another interesting result obtained in the least restrictive Model 3 is that understandability scores the highest relative contribution towards FRQ, higher than the two fundamental QCs relevance and faithful representation. The result is in line with i) Smith (1996) who stated that UK MBA students ranked understandability as the most important QC, ii) a finding in this thesis that Sri Lankan investors and lenders perceive understandability to be the most important QC (cf. Chapter 7), and iii) the 1989 IASC's Conceptual Framework, which recognised that understandability as a principle QC, and stated that "An essential quality of the information provided in financial statements is that it is readily understandable by users" (IASC, 1989, p. 8).

Within the analysis context given by the IASB, which postulates that the 6 QCs determine FRQ, Model 3 is the most general representation that one can test. The main result of this chapter thus is Expression (8.15) which embodies all statistically significant, direct and indirect percentage contributions by the QCs towards FRQ. Clearly, there is ample opportunity for future research if one steps outside of the IASB context of how the QCs relate to one another and instead investigates, based on logic, theory or empirical evidence, the myriad of possible indirect relationships that can be formed with the existing QCs. For example, since understandability is a strong predictor of FRQ, how do relevance and comparability contribute via understandability to the usefulness of annual reports, thus FRQ.

Chapter 9

Measuring FRQ in Sri Lankan entities

9.1 Introduction

According to my thesis process presented in Section 1.4, I first identified the information items that can be used to assess QCs (cf. Chapter 3). I then examined their perceived usefulness for investors and lenders (cf. Chapter 7). Next, I tested the reliability and validity of grouping information items to each QC and identified the relative contribution of each QC to FRQ (cf. Chapter 8). As the fourth and final step, in this chapter I use my findings of the first three steps to employ the FRQ measurement index and examine the level of FRQ shown by annual reports of Sri Lankan-listed entities to answer RQ3, i.e., to investigate whether or not FRQ improved after the 2012 mandatory adoption of IFRS in Sri Lanka.

9.2 Methodology to measure FRQ in Sri Lankan annual reports

9.2.1 The sample

A sample of annual reports was drawn from Public Limited Companies (PLCs) that adopted the full version of IFRS in 2012 and were registered on the Colombo Stock Exchange (CSE). I selected public firms because they are more likely to have a higher level of IFRS compliance due to market pressure (e.g., Bova & Pereira, 2012; Chakroun & Hussainey, 2014). Tasios & Bekiaris (2012) state that one of the most significant determinants of FRQ is the listing of a company on the capital market. As of 31st July 2019, there were 307 companies in 20 different sectors registered on the CSE. I chose the top 100 companies in terms of market capitalisation. These represented 91% of the total market capitalisation of the CSE. Prior studies (Ahmed, 1993; Ahmed & Karim, 2005; Mahboub, 2017; Samaha & Stapleton, 2009; Tasios & Bekiaris, 2012) revealed that firm size has a significant impact on complying with IFRS. Large companies have

the means to comply with all reporting qualities and practices and much more so than small companies. I then excluded 47 banking, finance and insurance sector companies (a similar approach was used by Imam & Malik, 2007; Kalainathan & Kaliaperumal, 2014; Manawaduge, 2012) from the sample because of double regulation. For example, banking and finance sector companies are highly regulated by Central Bank requirements and other sector-specific acts such as the Banking Act No. 30 of 1988, the Finance Companies Act No.78 of 1988, and the Insurance Act No. 43 of 2000. I excluded foreign companies and cross-listed firms because IFRS is being adopted in different years in different countries which impact would affect entities' local annual reports. However, there were no such companies in the top 100 non-financial companies in CSE. Thus, my final sample consisted of 53 companies (cf. Table 9-1). The selected 53 companies represent 60.4% of the total market capitalisation on the CSE and 17% of the total number of companies listed in CSE. The sample represents 15 sectors (out of 20 sectors) in CSE.

Table 9-1 – Sample distribution as per CSE sector classification

Sector	Sample	Total	Percentage of the sample	Percentage of the sample from sectors
Beverage and tobacco	10	23	18	43
Construction and engineering	1	4	2	25
Diversified holding	9	19	16	47
Health care	3	7	6	43
Hotel and travel	4	40	8	10
Investment trusts	1	10	2	10
Land and property	3	19	6	16
Manufacturing	7	41	12	17
Oil and palms	3	5	6	60
Chemical and pharmaceutical	2	12	4	17
Plantation	1	20	2	5
Power and energy	4	10	8	40
Telecommunication	2	2	4	100
Trading	2	9	4	22
Motors	1	4	2	25
Total	53	225	100	

To test whether FRQ in terms of QCs has improved after the IFRS adoption compared to before the IFRS adoption I followed the literature (e.g., Barth et al., 2008; Kythreotis, 2014; Yurisandi & Puspitasari, 2015), and considered two periods: the pre-adoption period, i.e., before the mandatory IFRS adoption in 2012, and the post-adoption period. For the pre-adoption period, I used annual reports for the year 2009/10 and for the post-adoption period, I used annual reports for the year 2013/14. Additionally, to test whether the effect of IFRS adoption on FRQ in terms of QCs is of a transitory or permanent nature, I have also collected the 2017/18 annual reports. Accordingly, I obtained 159 (53 x 3) firm-year observations. All annual reports were downloaded from the CSE[48] web site in August 2019.

In general, the financial year-end of most of the Sri Lankan entities is the 31st of March. However, some entities use the 31st December as their financial year-end. For those entities, the annual reports were considered for the years of December 31st 2009, 2013 and 2017.

9.2.2 Process (method) of measuring FRQ

This section discusses the method used in assessing the FRQ as reported in the published annual reports by Sri Lankan listed companies using the measurement models discussed in Chapter 8 of this thesis. Marston & Shrives (1991) stated that one of the measuring methods that have been used from the 1960s in accounting research is examining annual report disclosures using the disclosure index approach. Thus, in addressing the above-mentioned research questions, the selected sample of annual reports was analysed using a disclosure index developed in this study. The objective of this disclosure index is to assess the extent of FRQ in Sri Lankan entities. Hodgdon (2004) defined a disclosure index as a ratio between the actual disclosure scores awarded to a company and the maximum possible disclosure required or expected. My disclosure

[48] See https://www.cse.lk/home/market

index comprises the 54 sub-information items. Their relative contributions to FRQ are determined by the hierarchical framework discussed in Chapter 8. The next task is then to identify a method which allows me to measure the 54 sub-information items within annual reports.

According to Bryman & Bell (2015), content analysis is a transparent and flexible research method which can allow longitudinal analysis with relative ease. On the other hand, content analysis can only be as good as the documents on which the practitioner works, such as financial statements which are prepared by professional accountants (Bryman & Bell, 2015). The content analysis allows for making replicable and valid inferences from texts, images, and symbolic matters (Krippendorff, 2019). Beattie et al. (2004) identified five types of narrative analyses of annual report texts: i) readability studies that highlight the clarity of communication using readability indices, ii) thematic content analysis that concentrates on revealing underlying themes while breaking down the entire text; iii) linguistic studies that concentrate on the nuances of language as opposed to a one-dimensional assessment of readability; iv) a disclosure index (a partial form of content analysis) which considers the presence (or absence) of texts that are defined ex-ante; v) subjective analyst ratings which concentrate on analyst ratings of disclosure information quality and sufficiency. Referring to Beattie et al. (2004), Garefalakis et al. (2016) noted that narrative analysis studies have focused on either the efficiency of disclosure (types i) to iii) of narrative analysis studies) or the breadth and depth of disclosure quality (types iv) and v)). Further, Beattie et al. (2004) discussed that disclosure studies that employ a disclosure index could be classified into two types based on the extent of content analysis: a partial content analysis and a holistic content analysis. In partial content analyses, a researcher identifies a list of disclosure topics in the annual report text while in holistic content analysis, researchers investigate the whole annual report to construct their disclosure index. Therefore, the partial

content analysis, which fairly objective, is the appropriate approach that I have adopted here since I examine specific information items (identified from the literature) in annual reports.

The following three sections discuss the development of the scoring checklist, the approach to score the sub-information items, and the computation of the final FRQ value, respectively.

9.2.2.1 Development of a scoring checklist

The scoring checklist is determined by the identified sub-information items (cf. Chapter 3). Recall that the 54 sub-information items are valid measures for their respective QC and that they are useful in making investment and lending decisions (cf. Chapter 7, user need survey). The structural relationship between FRQ, the 6 QCs, the 17 information dimensions and 54 sub-information items was statistically justified by a PLS-SEM confirmatory factor analysis (Chapter 8) which concluded that the 54 sub-information items are measures of information dimensions that identify the 6 QCs. The resulting scoring checklist is shown in Table 9-2.

Table 9-2 – Scoring checklist based on 54 sub-information items

Category name	Information dimensions (17)	Reference Code	Sub-category of information (54) as per questionnaire – Section D	Operationalization
Relevance				
Forward-looking information	Annual reports contain Forward-looking information which helps to form expectations about the future of the company (FL)	FL1.1	Forecasted growth in revenue	No (0) /Yes (1)
		FL1.2	Forecasted growth in profit	No (0) /Yes (1)
		FL1.3	Forecasted growth in earnings per share	No (0) /Yes (1)
		FL1.4	Forecasted growth in market price per share	No (0) /Yes (1)
		FL1.5	Future business opportunities	No (0) /Yes (1)
		FL1.6	Future strategies that are to be used to achieve either revenue or earnings targets	No (0) /Yes (1)
		FL1.7	Factors which influence the revenue or earnings targets	No (0) /Yes (1)
		FL1.8	Forecasted growth in dividends per share	No (0) /Yes (1)
		FL1.9	Information on future non-financial key-performance indicators	No (0) /Yes (1)
Cash flow information	Annual reports contain information about past and future cash flows	CF2.1	Forecasted cash flows	No (0) /Yes (1)
		CF2.2	Past information on cash and cash equivalents	No (0) /Yes (1)
		CF2.3	Past cash flow comparatives more than one year	No (0) /Yes (1)
		CF2.4	Justifications/reasons for the changes of past cash flows	No (0) /Yes (1)
		CF2.5	Information on segmental cash flows (product, sector or geographical wise classification)	No (0) /Yes (1)
Segmental information	Annual reports contain Segmental financial information	SEG3.1	Segmental information on revenue	No (0) /Yes (1)
		SEG3.2	Comparative information on segmental revenue	No (0) /Yes (1)
		SEG3.3	Segmental information on past profit	No (0) /Yes (1)
		SEG3.4	Segmental profit forecasts	No (0) /Yes (1)
		SEG3.5	Segmental non-financial key-performance indicators	No (0) /Yes (1)
Risk related information	Annual reports contain Information on risk relating to financial, market, economic, political concerns etc.	RISK4.1	Information on company risk profiles for the current year	No (0) /Yes (1)
		RISK4.2	Disclosures of risk mitigation plans	No (0) /Yes (1)
		RISK4.3	Comparisons of risk profiles with past year/s	No (0) /Yes (1)

Measuring assets, liabilities, and equity	Annual reports contain justification for measurement methods of Assets, liabilities, and equity line items	FV5.1	Assets, liabilities, and equity line items in annual reports are measured at historical cost	Line items presented at HC as a % of total line items If more (above 50%) line items are recorded at cost, it gets (1), otherwise below 50% (0)
		FV5.2	Assets, liabilities, and equity line items in annual reports are measured at fair value	Line items presented at FV as a % of total line items. If ≥50% of line items are recorded at FV, record '2', if <50%, score '0'.[49]
		FV5.3	Disclosures on the description of the valuation processes used for assets, liabilities, and equity items	No (0) /Yes (1)
		FV5.4	Information on changes in fair values of assets, liabilities, and equity items.	No (0) /Yes (1)
Capital structure	Annual reports contain information on the capital structure of the company (proportion of debt and equity that is used to finance assets)	CapS6.1	Explanations on gearing ratio (debt to equity) used by the company	No (0) /Yes (1)
		CapS6.2	Comparative information on the change of capital structure	No (0) /Yes (1)
		CapS6.3	Information on the breakdown of long-term debt	No (0) /Yes (1)
Faithful Representation				
Accounting estimates and policies	Annual reports contain Providing valid arguments to support the decisions about accounting estimates and the selection of accounting policies	AcEsPo8.1	The explanation for accounting policies selected	No (0) /Yes (1)
		AcEsPo8.2	The basis for making accounting estimates	No (0) /Yes (1)
		AcEsPo8.3	Explaining the limitations of making accounting estimates and selecting accounting policies	No (0) /Yes (1)
		AcEsPo8.4	The factors affecting the decisions on accounting estimates and the selection of accounting policies	No (0) /Yes (1)
		AcEsPo8.5	Explanations with respect to reasons for changes in accounting estimates and policies	No (0) /Yes (1)

[49] There are two reasons for this heuristic rule. Firstly, fair value makes information more relevant than the historical cost. This relationship is expressed through assignment of '2', rather than '1', when the respective condition for FV5.2 is satisfied. Secondly, information can only score above zero once in either FV5.2 or FV5.1, and when it does, a higher score is assigned to the presence of FV rather than historical cost measurements.

Related party disclosures	Annual reports contain Information on related party transaction disclosures	RePP9.1	Providing an independently related party transactions review committee report	No (0) /Yes (1)
Self-reported positive and negative events	Annual reports contain Disclosures relating to both positive (good) and negative (bad) future events	PoNeE10.1	Information on past negative events	No (0) /Yes (1)
		PoNeE10.2	Information on past positive events	No (0) /Yes (1)
		PoNeE10.3	Expected future negative information	No (0) /Yes (1)
		PoNeE10.4	Expected future positive information	No (0) /Yes (1)
Understandability				
Readability	Readability of annual reports	Redabi11.1	Length of sentences to explain information	Readability score measured by Grammarly readability score falls 0-1
		Redabi11.2	Use of non-technical terms (words) to explain information	1 – Number of rare words as a percentage of the number of words given by Grammarly readability report (0 – 1)
Glossary of terms	A glossary of terms provided in annual reports	GloT12	The usefulness of glossary of terms provided in annual reports	No (0) /Yes (1)
Graphical information	Use of graphs, charts or tables to explain information	Grainf13.1	Annual reports that contain infographics to present information	No (0) /Yes (1)
Notes to financial statements	Use of notes to explain the line items in the financial statements	Notes14.1	Level of details in the notes to financial statements	No (0) /Yes (1) Above the minimum number of notes (1), i.e., PBT and PPE Only the minimum number of notes (0)
Comparability				
Comparative information	Annual reports contain comparative financial information for more than one year in income statement and statement of financial position	ComInf15.1	Discussion of comparative information relating to revenue and profit	No (0) /Yes (1)
		ComInf15.2	Comparison of the firm's current year revenue and profit with the relevant forecasts made in the previous year	No (0) /Yes (1)
		ComInf15.3	Comparison of company information with industry and economic information	No (0) /Yes (1)
		ComInf15.4	Discussion on non-financial key performance indicators compared to last year	No (0) /Yes (1)

Financial ratios	Annual reports Providing financial index numbers and financial ratios	Ratio16.1	Information relating to an analysis of financial position and performance using ratios	No (0) /Yes (1)
Timeliness				
Timely publishing of annual reports	Annual reports finalised and published within a shorter period (three months after financial year-end)	TimliIn17.1	Annual reports audited and finalised before three months to the year-end	No (0) /Yes (1) Difference between the yearend date and the directors signature date
		TimliIn17.2	Annual reports published before three months to the year-end	No (0) /Yes (1) Difference between the yearend date and the AGM date
Verifiability				
Audit Report	Annual reports Providing an audit report for the financial statements	AuR7.1	A financial statement with unmodified audit opinion compared to the modified audit opinion	Modified (0) Unmodified (1)
		AuR7.2	Providing independent third-party assurance for narrative reports	No (0) /Yes (1)
		AuR7.3	Annual reports which have been audited by the global audit firms (Big-4 audit firms)	No (0) /Yes (1)
			Maximum achievable scoring sum	**55**

9.2.2.2 Approach to score sub-information items

The next step is to decide on the measurement scales for the selected measures. Cooke & Wallace (1989) discussed two main approaches for developing a scoring scheme in disclosure studies. The first approach depends on the presentation of information, and the researcher counts the number of words used to describe an item disclosed. However, Cooke & Wallace (1989) criticise this scoring procedure due to the subjectivity in the allocation of scores, and suggest a second approach, the *dichotomous procedure*. Under a dichotomous procedure, a disclosure item scores '1' if it is disclosed and '0' if it is not disclosed. Cooke and Wallace recommend that the entire corporate annual report should be reviewed first to identify whether a particular item is applicable or not, such that penalising a company by assigning a score of a 0 was avoided. This approach has been supported and used by other researchers (e.g., Bujaki & McConomy, 2002; Dawd et al., 2018; Garefalakis et al., 2016).

I used the dichotomous approach to score all but two items related to readability (Redabi11.1 and 11.2). There, I used the Grammarly readability score[50] between 0 to 1. This information is shown in Table 9-2, Column 'Operationalization'. The following procedure was applied to maintain the reliability of scoring:

- I read the whole annual report thoroughly to understand the content; especially, to identify that the information in annual reports is meaningfully related to the items in the checklist. Consequently, the risk of penalising companies for failing to disclose non-applicable items is greatly reduced.

[50] A readability score is a number that tells you how easy it will be for someone to read a particular piece of text. Grammarly's readability score is based on the average length of sentences and words in your document, using a formula known as the Flesch reading-ease test. (See www.grammarly.com)

- I recorded '1' (disclosed/complied with) when the information item was disclosed or complied with the checklist item and record '0' (= not disclosed/complied with) when the information item was not disclosed or complied with the checklist item.[51]

9.2.2.3 Computing FRQ

In computing the disclosure scores, the following three steps were followed.

1. Examine each annual report and score the information contained within against all 54 sub-information items using the measurement rules shown in the disclosure checklist, Table 9-2, last column.

I spent approximately +200 hours to score 159 annual reports over a period of 8 weeks. The resulting scores from my content analysis are stored in an Excel file. Figure 9-1 shows an example for the reporting scores obtained for the 54 sub-information items from my content analysis of one arbitrarily chosen annual report.

Sub-information	score	Sub-information	score
FL1.1	0	SEG3.2	1
FL1.2	0	SEG3.3	0
FL1.3	0	SEG3.4	0
FL1.4	0	SEG3.5	0
FL1.5	1	RISK4.1	1
FL1.6	1	RISK4.2	1
FL1.7	1	RISK4.3	0
FL1.8	0	FV5.1	0
FL1.9	1	FV5.2	2
CF2.1	0	FV5.3	1
CF2.2	1	FV5.4	0
CF2.3	1	CapS6.1	1
CF2.4	1	CapS6.2	0
CF2.5	0	CapS6.3	1
SEG3.1	1	Total = 16	
Relevance - total score = 16			
Relative quality score = 53%			

Sub-information	score
AcEsPo8.1	1
AcEsPo8.2	1
AcEsPo8.3	0
AcEsPo8.4	0
AcEsPo8.5	1
ReP9.1	0
PoNeE10.1	1
PoNeE10.2	1
PoNeE10.3	1
PoNeE10.4	1
Total	7
Faithful representation	
total score = 7	
Relative quality score = 70%	

Sub-information	score
Redabi11.1	0.62
Redabi11.2	0.63
GloT12	0
Grainf13.1	1
Notes14.1	1
Total	3.25
Understandability	
total score = 3.25	
Relative quality score = 65%	

Sub-information	score
ComInf15.1	1
ComInf15.2	0
ComInf15.3	1
ComInf15.4	0
Ratio16.1	1
Total	3
Comparability	
total score = 3	
Relative quality score = 60%	

Sub-information	score
TimliIn17.1	1
TimliIn17.2	1
Total	2
Timeliness	
total score = 2	
Relative quality score = 100%	

Sub-information	score
AuR7.1	1
AuR7.2	0
AuR7.3	1
Total	2
Verifiability	
total score = 2	
Relative quality score = 67%	

FRQ (unweighted) for company *i* in year *t* = 33.25 { (33.25/55) = 60.4%}

Figure 9-1 – Example of calculating quality scores for a company

[51] There are no inapplicable items in the checklist

2. Calculate the percentage relative score for each QC.

It is common in the literature to use additive indices (e.g., Bujaki & McConomy, 2002). Thus, I first added the scores of those sub-information items which corresponded to a particular QC. After obtaining the six sums, I then calculated the relative quality score RQS_{jit} for each QC, i.e., the ratio between what the reporting company discloses, i.e., the awarded scores, and what the company is expected to disclose under each QC, i.e., the maximum possible scoring points for each QC. Thus,

$$RQS_{jit} = \left({AQ_{jit}}/{TQ_{jit}}\right) * 100\% \quad (9.1)$$

where, $j = 1, \dots, 6$ represents the 6 QCs, AQ_{jit} are the awarded scores for a QC for company i in year t, and TQ_{jit} is the maximum possible score for a QC for company i in year t. The relative scoring approach has been used in prior studies (e.g., Ghazali & Weetman, 2006; Leventis & Weetman, 2004) and it is important because each of the QCs has an unequal number of sub-information items associated. A further reason is to avoid a situation where a sample company would be penalised for not disclosing a certain item in the index when the respective sub-information item is not applicable.

To guide the reader through this process, consider the example shown in Figure 9-1 which has faithful representation associated with a total of 10 sub-information items, thus $TQ_{jit} = 10$. For the chosen company, 7 information items were represented in the annual report, thus, $AQ_{jit} = 7$, and the relative percentage score for faithful representation yields $RQS_{jit} = 70\%$.

The last step consists of calculating the FRQ from the above results. Two possible approaches that have been used in the literature in developing disclosure indices are the weighted and unweighted approaches. Previous studies (e.g., Abraham, Marston, & Jones, 2015; Chen,

Miao, & Shevlin, 2015; Pivac, Vuko, & Cular, 2017) on annual report disclosures have used weighted score indices to measure the extent of some aspect of disclosure while others used unweighted scores (e.g., Dawd et al., 2018; Garefalakis et al., 2016). Robbins & Austin (1986) suggested that those who use the weighted index believe that such a score replicates both the degree and importance of each disclosure item that formulae the index. However, those who argue contrary to the use of the weighted index contend that the weighting does not considerably alter the results (Wallace & Naser, 1995).

3a. Calculate the FRQ using the unweighted approach.

The unweighted FRQ_{it} for company i in year t is the arithmetic sum of the six RQS_{jit} obtained. Thus,

$$FRQ_{it}(unweighted) = \sum_{j=1}^{6} RQS_{jit} \quad (9.2)$$

For the example discussed in Figure 9-1, the company earned a total of 33.25 marks out of a maximum possible score of 55, which yields an FRQ of 60.45%.

3b. Calculate the FRQ using the weighted approach.

The weighted FRQ_{it} for company i in year t is calculated by multiplying the relative contribution (path coefficients) of the QCs towards FRQ as derived from the PLS-SEM analysis and the relative scores RQS_{jit} derived from the content analysis. Thus,

$$FRQ_{it}(weighted) = \sum_{j=1}^{6} \beta_j RQS_{jit} \quad (9.3)$$

where the β_j are the relative contributions (path coefficients) of the $j = 1,..,6$ QCs to FRQ obtained in Chapter 8, and RQS_{jit} are quality score for each QCs calculated in Step 2.

Using the information from the example shown in Figure 9-1, and using Model 3 (cf. Expression 8.15), I obtain the following calculation:

$$FRQ = (0.135R + 0.137F + 0.198C + 0.214U + 0.197V + 0.119T)$$

$$FRQ_{it} = 0.135*.53+0.137 * .70 + 0.198 * .65 + 0.214 * .60 + 0.197 * .67 + 0.119 * 1$$

$$FRQ_{it} = 0.6755 = 67.6\%$$

9.2.3 Reliability of content analysis

Before scoring all the sample firms, I used 2010 and 2018 annual reports for six companies comprising of two firms each randomly selected among firms within the top, middle and bottom ranges as measured by market capitalisation. The twelve annual reports were used for pilot-testing which I conducted for two reasons: First, to identify a convenient administration procedure which will allow me to manage the work-load of performing contents analysis for 159 annual reports; Secondly, to test the consistency of applying the rules of scoring each of the 54 sub-information items. To achieve this second aspect, another scorer was involved in the process to independently pilot-score the twelve annual reports. I then compared both scoring lists. Most items were scored identically. Where there was a difference, the consequent discussion showed that the problem lay in the wording of the measurements. For example, FV5.2 was reworded as 'assets, liabilities, and equity line items in annual reports are measured at fair values' instead of 'assets, liabilities, and equity line items in annual reports are measured at fair value' instead of historical cost. I then rectified these minor problems and finalised the scoring checklist for the content analysis of the remaining 147 annual reports. The scoring of these annual reports was performed from August and September 2019. Performing contents analyses over an extended period of time and a larger number of items calls for reliability checks. Reliability is fundamentally concerned with issues of consistency of measures with three different meanings: stability, internal reliability, and inter-observer consistency (Bryman & Bell, 2015, pp. 157-158).

Stability involves "asking whether or not a measure is stable over time, so that one can be confident that the results relating to that measure for a sample of scores do not fluctuate" (Bryman & Bell, 2015, p. 158). As Bryman & Bell (2015, p. 157) suggested, the "most obvious way of testing for the stability of a measure is the test-retest method that involves administering a test or measure on one instance and then re-administering it to the same sample on another occasion". Thus, I selected nine annual reports that represent one in each of the largest, smallest, and average-sized firms in my sample, as measured by market capitalization, for the three years 2010, 2014, and 2018. I performed a content analysis (scoring annual reports) employing the disclosure index. I re-scored the nine annual reports two weeks later from and identified that there were no changes in the scores.

Internal reliability explains "whether or not the indicators that make up the scale or index are consistent; in other words, whether or not respondents' scores on any one indicator tend to be related to their scores on the other indicators" Bryman & Bell (2015, p. 158). This was examined in Chapter 8 using confirmatory factor analysis in SmartPLS, and the results revealed that was no internal reliability problem.

Inter-observer consistency is another necessary and important step in testing a disclosure index. It enables to ensure that multiple individuals can use the index with consistent (reliable) results, showing reproducibility (Garefalakis et al., 2016; Krippendorff, 2004). According to Krippendorff (2004, p. 216), reproducibility is the "degree to which a process can be replicated by different analysts working under varying conditions, at different locations, or using a different but functionally equivalent measuring instrument". This can be achieved through a test-test condition; for example, two or more individuals working independently from one another, apply the same recording instructions to the same units of analysis. One method to assess this reproducibility is statistical comparisons of the interrater consistency. Thus, I have conducted a

test-test. One annual report which records the highest market capitalization on the CSE as at 31st July 2019, was given to two independent scorers. One scorer is an academic who has research experience in content analysis, and the other is an accounting professional who has industry experience. The scorers were given two weeks to finish the scoring. Krippendorff's alpha test was used to estimate inter-scorer reliability. The scores made by three scorers (including myself) of that annual report were used to calculate alpha values using SPSS. The inter-scorer's reliability was 'high' ($\alpha = .7718$). Krippendorff's alpha test statistics further showed there is a 7.68% chance that the alpha would be below 0.7 if the whole sample of annual reports were tested.

9.3 Analysis and results

9.3.1 FRQ of Sri Lankan listed entities

Here, I address RQ3 and the two associated sub-research questions SRQ3.1 'What is the level of FRQ of Sri Lankan entities?' and SRQ3.3 'Has FRQ improved over time in Sri Lanka?' I thus calculate, as shown above, the unweighted and weighted FRQs of annual reports of Sri Lankan entities for the years 2010, 2014 and 2018[52].

9.3.1.1 Unweighted FRQ

Table 9-3 shows the mean percentage for the relative quality scores RQS_{jit} associated with each QC and the unweighted FRQ (cf. Section 9.2.2.3). The QC of relevance is assessed by 29 sub-information items. Statistics show that Sri Lankan annual reports achieved, on average, a 38% relative quality score in the year 2010, which improved to 48% and 55% by 2014 and 2018, respectively. The same trend from 2010 to 2018 was observed for all relative quality scores. The highest (lowest) relative quality score in 2010 was recorded for verifiability at 65% (relevance 38%) and in 2018 by faithful representation at 78% (relevance 55%), respectively. The highest

[52] SRQ3.2 discuss in Section 9.3.2

relative improvement over the period from 2010 to 2018 (cf. Table 9-3, last column) was achieved by relevance (44%), whereas the lowest growth rate is recorded by verifiability (6 %).

Table 9-3 – Summary statistics for relative quality scores RQS_{jit} (percentage representation) and unweighted FRQ for the years 2010, 2014 and 2018.

QC	Relative quality scores RQS_{jit} summary statistics	Annual reports for years			Relative change 2010 to 2018
		2010	2014	2018	
Relevance (measured by 29 sub-information items)	Mean	38.0%	48.3%	54.8%	44.2%
	Median	40.0%	50.0%	57.0%	
	SD	.1508	.1368	.1379	
Faithful representation (measured by 10 sub-information items)	Mean	54.2%	59.3%	77.7%	43.3%
	Median	60.0%	60.0%	80.0%	
	SD	.1295	.13985	.16483	
Understandability (measured by 5 sub-information items)	Mean	58.5%	67.9%	69.7%	19.1%
	Median	61.0%	63.0%	64.0%	
	SD	.1499	.1248	.1161	
Comparability (measured by 5 sub-information items)	Mean	55.9%	57.4%	60.0%	7.3%
	Median	60.0%	60.0%	60.0%	
	SD	.1199	.0880	.0960	
Timeliness (measured by 2 sub-information items)	Mean	62.3%	67.0%	68.9%	10.6%
	Median	100.0%	100.0%	100.0%	
	SD	.4263	.4153	.3950	
Verifiability (measured by 3 sub-information items)	Mean	65.1%	66.3%	68.8%	5.7%
	Median	67.0%	67.0%	67.0%	
	SD	.7932	.0806	.1207	
Total unweighted FRQ	Mean	46.7%	54.5%	62.1%	32.9%
	Median	48.0%	57.0%	64.0%	
	SD	.1175	.1106	.1164	

The bottom rows in Table 9-3 show a 47% average unweighted FRQ for my sample of Sri Lankan entities in 2010, which improved to 55% in 2014 and 62% in 2018. This is a relative improvement of 33% in the FRQ between pre and post-adoption of IFRS. The last point I shall make here in relation to Table 9-3 is that the size of the difference between mean and median values reflects the skewness of the distribution of RQS_{jit} and FRQ values. To visualise this aspect better, I produced Table 9-4.

In Table 9-4, I show the distribution of RQS_{jit} and unweighted FRQs for my sample of 53 companies over the years 2010, 2014 and 2018 within ranges of quality scores. For example, in 2010, only 10 out of 53 companies achieved a level of relevance above 50%. This increased to (17+8+1)/53 = 49% of companies to be above the 50% benchmark in 2014 and (18+16+3)/53 = 70% in 2018. For faithful representation, the respective numbers are 54%, 62% and 92%. All 4 enhancing QCs and the overall unweighted FRQ values also show an increasing pattern from 2010 to 2018. For the unweighted FRQ, the respective numbers are 43%, 72% and 85%. This is a relative 97% [= (85% – 43%)/43%] growth in FRQ from 2010 to 2018, which indicates that a significant number of firms improved their FRQ. With the numbers and trends in numbers presented, I thus infer that this provides strong evidence that Sri Lankan companies improved their FRQ over the period from 2010 to 2018.

Table 9-4 – Distribution of relative quality scores RQS_{jit} and unweighted FRQ for the years 2010, 2014 and 2018.

[%]	Relevance			Faithful representation			Comparability			Understandability			Timeliness			Verifiability			Unweighted FRQ		
	2010	2014	2018	2010	2014	2018	2010	2014	2018	2010	2014	2018	2010	2014	2018	2010	2014	2018	2010	2014	2018
91-100					1	7							27	30	30	0	1	5			
81-90					1	12			1	8	12	15								1	2
71-80	1	1	3	1	2	15	1	1	2	1	9	9							1	1	9
61-70	1	8	16	8	14	8				21	25	23				50	50	46	4	13	23
51-60	8	17	18	20	15	7	43	45	47	5	2	3							18	23	11
41-50	9	11	6	13	14	2				16	4	3	12	11	13				14	9	6
31-40	16	9	6	7	4		7	6	2	1	1					3	2	2	13	4	1
21-30	10	5	3	3	1	2				1									2	1	1
11-20	7	1	1		1		1	1	1										1	1	
0-10	1	1		1			1						14	12	10						
Total	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53

9.3.1.2 Weighted FRQ

As shown in Section 9.2.2.3, to calculate the weighted FRQ according to Expression (9.3), I used i) the relative quality scores RQS_{jit} for each QC for a particular year and company, and ii) the

relative contributions (β) of the QCs towards FRQ. The relative contributions varied depending on the structural equation model tested. The relevant expressions are found in Sections 8.5.1 to 8.5.3 and are associated with Models 1, 2 and 3, respectively. The results from these calculations are shown in Table 9-5.

Table 9-5 – FRQ statistics for Models 1, 2 and 3 for the years 2010, 2014 and 2018.

	Year	**2010**	**2014**	**2018**
Model 1 Expression (8.3)	Mean	54.8%	60.8%	66.5%
	Median	58.3%	62.5%	69.2%
	SD	*.111*	*.105*	*.114*
Model 2 Expression (8.9)	Mean	51.3%	57.9%	65.0%
	Median	52.1%	60.0%	65.2%
	SD	*.092*	*.092*	*.102*
Model 3 Expression (8.15)	Mean	55.5%	61.3%	66.0%
	Median	57.8%	62.8%	67.7%
	SD	*.103*	*.096*	*.106*

Independently of the merit (cf. Section 8.6) of each of Model 1, 2 and 3, the mean and median values suggest that the FRQ has improved over time from 2010 to 2018. All three models suggest that the sample of Sri Lankan entities have an average weighted FRQ of 51% to 55% in 2010, rising to 58% to 61% in 2014, and 65% to 67% in 2018. Given that Model 3 is the more comprehensive choice among the three, I put most emphasis on the corresponding results, which are that the average weighted FRQ is 56% in 2010 and 66% in 2018. The percentage improvement of FRQ is, therefore 20%. An ANOVA test was performed with respect to Model 3 to examine whether there was a statistically significant difference between the FRQ means calculated for the three different years. The F-test results ($F=14.028$, $p=.000$) suggest that there is a statistically significant difference between the FRQ mean values for annual reports from 2010, 2014 and 2018. Thus, I conclude there has been an improvement of FRQ over the period from 2010 to 2018.

9.3.1.3 The effects of size on FRQ

A survey conducted by KPMG (2014) across ten countries reported that companies increased the pagination of the annual reports by an average of 3% per annum over 5 years, starting from the year 2009. Arguably, more information fits on more pages, which in turn increases the chance of achieving a higher total score through my scoring checklist (the FRQ measurement index). Therefore, I examined the relationship between FRQ and company characteristics, such as the size of the annual report, the size of the firm in terms of Total Assets (TA), and the market capitalization. Table 9-6 shows the number of pages of annual reports of my sample. The statistics show that the average number of pages increased from 94 to 176 over the period, an 87% growth. Seventeen companies (32% of the sample) produced more than 200 pages in reports in 2018, while no report exceeded such length in 2010. The size of the firms in terms of TA increased from KLR16 million to LKR44 million from 2010 to 2018, a relative growth of 175%.

Table 9-6 – Sri Lankan sample (N=53): number of pages in the annual reports and total assets.

Number of Pages	Year		
	2010	**2014**	**2018**
351-400	0	0	2
301-350	0	1	2
251-300	0	0	3
201-250	0	8	10
151-200	7	15	16
101-150	14	17	11
51-100	24	12	9
0-50	8	0	0
Average pages	94	148	176
SD	42	46	79
Total Assets (TA) [LKR in thousands] Mean	16,483	31,411	44,691
Median	6,922	15,533	21,730

In Table 9-7, I present correlation statistics for FRQ and the various 'size' proxies discussed above. All 3 variables, the total number of pages, the size of the firm in terms of TA, and market capitalization are positively correlated with the derived FRQ values. The correlation

between market capitalization and TA is not surprising. The highest correlation is between FRQ and the total number of pages, which in turn are positively correlated with TA. Thus, larger companies produce longer annual reports and increase their possibility of achieving higher FRQ values. Thus, the hypothesis 'more information fits on more pages' has not been rejected. The question that arises from this result is then: Did IFRS adoption mediate the positive correlation between FRQ and annual report lengths? I shall investigate this issue in the next Section 9.3.2.

Table 9-7 – Correlation between FRQ and three modulating variables.

		FRQ (weighted)	**Total number of pages in the annual report**	**Total Assets**
Total number of pages in the annual report	Pearson correlation	.703**		
	Sig. (2-tailed)	.000		
Total assets	Pearson correlation	.444**	.678**	
	Sig. (2-tailed)	.000	.000	
Market capitalization	Pearson correlation	.172**	.402**	.695**
	Sig. (2-tailed)	.030	.000	.000

9.3.2 FRQ before and after IFRS adoption

This section discusses SRQ3.2 which examines whether there is an improvement in FRQ of Sri Lankan listed entities after adopting IFRS compared to before adopting IFRS. Section 9.3.1 revealed that the mean relative quality scores (RQS_{jit}) of individual QCs, unweighted as well as weighted (Model 3) FRQs increased in 2014 compared to 2010. Thus, the following Null hypothesis was tested:

H_9 – There is no statistically significant difference between the relative quality scores (RQS_{jit}) of individual QCs, and the unweighted and weighted FRQ between the pre-adoption period of IFRS (2010) and the post-adoption period of IFRS (2014) in Sri Lanka.

Based on t-test statistics, the Null hypothesis was rejected at a 1% significance level with respect to relevance (t= 3.66, p=.000) and understandability (t=3.51, p=.001), concluding that there is a statistically significant difference of mean relative quality scores between 2010 and 2014 relating to those QCs. The total unweighted FRQ (t=3.45, p=.001), as well as the weighted FRQ from Model 3 (t=2.96, p=.004) also show that there is a statistically significant difference between these values for 2010 and 2014.

I examined the effect size of weighted FRQ using Cohen's *d* effect size formula for the t-test. Cohen suggested that d=0.2 is 'small' effect size, 0.5 represents a 'medium' effect size, and 0.8 a 'large' effect size (Cohen, 1988; Fritz et al., 2012). The effect size was as 0.58, which is higher than 0.5, indicates a medium effect.[53] This suggests that the FRQ value of Sri Lankan entities in 2014 immediately after IFRS adoption in 2012 has not only improved statistically but also materially.

Further, in support of the above findings, a t-test was performed with respect to the weighted and unweighted FRQ values to identify whether there is a statistically significant improvement between 2014 and 2018 within the post-adoption period of IFRS. The following Null hypothesis was tested.

H_{10} – There is no statistically significant difference in unweighted and weighted FRQ between 2014 and 2018 in Sri Lanka.

Based on t-test statistics, the Null hypothesis was rejected for both weighted (t=2.39, p=.018) and unweighted (t=2.47, p=.016) FRQs. Thus, there is a statistically significant

[53] Cohen's d = (0.613 - 0.555)／0.099562 = 0.582554.

difference between the mean FRQs for 2014 and 2018. The effect size records as 0.46, which at less than 0.5 indicates a small effect. [54] This suggests that the FRQ of Sri Lankan entities has also slightly improved in the post-adoption period of IFRS. However, the mean difference (61.3% – 55.5% = 5.8%) and the effect size (0.58) between 2010 to 2014 is higher than the mean difference (66% – 61.3% = 4.7%) and effect size (0.46) between 2014 to 2018. Thus, the improvement from 2010 to 2014 is greater than it is from 2014 to 2018.

Based on the above findings, as an additional analysis that supports answering RQ1, RQ2 and RQ3, I examined whether or not there was a difference between the perception of users and the measured reporting practices shown in annual reports. Thus,

- Q1: Is there a difference between the users' perceived impact of IFRS and the measured impact of IFRS on FRQ in Sri Lanka? and
- Q2: Is there a statistically significant difference between the perceived usefulness of 54 sub-information items that are used to assess FRQ and the actual disclosure level of 54 sub-information items presented by the annual reports of Sri Lanka entities?

Both questions are discussed in turn below.

9.3.2.1 Measured impact vs perceived impact of IFRS

This section compares the users' perceived impact of IFRS and the measured impact of IFRS as calculated by the FRQ measurement index developed in my study. Sri Lankan investor's and lenders' perceptions of the impact of IFRS on FRQ was discussed in Section 7.5.7. There are no statistically significant differences in the responses between the investors and lenders regarding the perceived impact of IFRS on QCs and FRQ. Also, the respondents perceived that IFRS had improved all QCs of information and FRQ by Sri Lankan entities compared to the previous

[54] Cohen's d = (0.66 - 0.613)／0.101124 = 0.464777

(before 2012) SLASs. On the other hand, the measured impact of IFRS depicted through annual reports by Sri Lankan entities, discussed in Section 9.3.2, is that the weighted and unweighted FRQ values improved in 2014 compared to the period before adopting IFRS, i.e., 2010. Therefore, there is no difference between the perception of Sri Lankan capital providers on the impact of IFRS on improving the FRQ and the empirically measured FRQ of a representative sample of Sri Lankan annual reports. However, in contrast to the users' perception on individual QCs which, as noted above, has improved universally, the measured relative quality scores for the timeliness, verifiability, faithful representation and comparability have not statistically increased in the period after IFRS adoption compared to the period before adopting IFRS.

9.3.2.2 54 sub-information items: perceived usefulness vs measured usefulness

In this section, I examine the users' perceived usefulness of 54 sub-information items and their respective empirical disclosure level in the sample of annual reports of Sri Lankan listed entities. Therefore, the following Null hypothesis was tested.

H_{11} – There is no statistically significant difference between the perceived usefulness of 54 sub-information items and the actual disclosure level of those sub-information items in annual reports of the sample of Sri Lankan entities (N=53).

In the literature, scholars have used several methods to compare the perceived disclosures of information and the actual information disclosures in annual reports. For example, Firth (1978) and McNally, Eng, & Hasseldine (1982) used a method of counting the number of companies disclosing each of the selected items and calculated the average score for all companies by multiplying the user-determined score for an item by the proportion of the companies that disclosed the information item. Ahmed (1993) examined this association by correlating the mean

score of perceived usefulness of information items with the actual disclosure level of information using the Spearman rank correlation coefficients. Following them, I employed the following three steps:

Step 1: Using the data collected from the user need survey (discussed in Chapter 7), I calculated the mean usefulness for each of the 54 sub-information items based on the 449 responses, to identify the 'perceived usefulness' of information items combining both investors and lenders.

Step 2: From the data collected through the content analysis of annual reports (as discussed in Section 9.2.1 and 9.2.2) concerning the disclosure of sub-information items presented by the sample companies and their (N=53) 2018 annual reports[55]. I calculated the total quality (measured usefulness) score (TQS_t) for each sub-information item is calculated by accumulating whether or not that particular information was present. Thus,

$$TQS_t = \sum_{j=1}^{53} AQ_t \tag{9.4}$$

where, AQ_t is the awarded marks for a sub-information item at time *t*, $j = 1,..,53$ companies. The maximum achievable score max(TQS_t) was 54 because one of the sub-information items (FV5.2) may score AQ_t=2 if present.

Step 3: I examined the association between the perceived usefulness of each of the 54 sub-information items obtained in Step 1 and the measured usefulness scores obtained in Step 2.

Table 9-8 shows the actual total quality (measured usefulness) scores for each sub-information item and mean values of perceived usefulness for all 54 sub-information items. I used a two-sample *t*-test with an unequal variance to assess whether or not the differences are statistically significant. According to the *t*–values and *p*–values are shown, all but AcEsPo8.5

[55] Since the survey was conducted in 2019 January/February, I have chosen the nearest year for the comparison.

(i.e., explanations with respect to reasons for changes in accounting estimates and policies) have a statistically significant difference of perceived usefulness of sub-information items and the actual quality scores calculated from annual reports of Sri Lankan listed entities. Importantly, I noticed that with respect to 24 sub-information items (with positive *t*–values), the actual disclosure level (quality scores – TQS_t) are below the perceived usefulness level by users. Conversely, the other 30 out of the 54 sub-information items (with negative *t*–values) show that the perceived usefulness levels by users are below the actual disclosure level.

Table 9-8 – Perceived and actual quality score across all 54 sub-information items obtained for the 2018 annual reports. Sub-information item FV5.2 scores '2' if present, and '0' if not. All other sub-information items score '1' if present and '0' if not present.

Sub-information item	Perceived usefulness		Measured usefulness		*t*-value	*p*-value	Sub-information item	Perceived usefulness		Measured usefulness		*t*-value	*p*-value
	Mean	SD	TQS_t	SD				Mean	SD	TQS_t	SD		
FL1.1	2.80	0.85	4	0.21	62.2	0.00	CapS6.2	2.78	0.86	45	0.44	-15.1	0.00
FL1.2	2.77	0.85	4	0.19	61.5	0.00	CapS6.3	2.83	0.86	44	0.45	-12.0	0.00
FL1.3	2.76	0.91	1	0.08	62.8	0.00	AuR7.1	2.78	1.00	53	0.11	-25.9	0.00
FL1.4	2.65	0.95	0	0.00	58.9	0.00	AuR7.2	2.51	1.00	5	0.22	45.2	0.00
FL1.5	2.98	0.90	50	0.27	-18.5	0.00	AuR7.3	2.66	1.03	51	0.21	-24.5	0.00
FL1.6	2.93	0.91	49	0.29	-17.9	0.00	AcEsPo8.1	2.36	0.99	53	0.00	-35.3	0.00
FL1.7	2.88	0.88	46	0.38	-14.1	0.00	AcEsPo8.2	2.39	0.97	52	0.18	-33.4	0.00
FL1.8	2.57	0.94	2	0.11	54.4	0.00	AcEsPo8.3	2.36	0.97	18	0.37	21.7	0.00
FL1.9	2.64	0.91	20	0.41	26.3	0.00	AcEsPo8.4	2.36	0.95	13	0.33	30.6	0.00
CF2.1	2.96	0.91	0	0.00	69.8	0.00	AcEsPo8.5	2.37	0.99	31	0.48	0.6	0.52
CF2.2	2.75	0.90	46	0.39	-16.9	0.00	ReP9.1	2.51	1.01	52	0.48	-29.6	0.00
CF2.3	2.68	0.93	41	0.46	-9.4	0.00	PoNeE10.1	2.47	0.95	43	0.45	-17.3	0.00
CF2.4	2.74	0.93	27	0.49	15.9	0.00	PoNeE10.2	2.38	0.97	52	0.21	-33.8	0.00
CF2.5	2.71	0.91	14	0.38	38.3	0.00	PoNeE10.3	2.68	0.94	47	0.39	-19.5	0.00
SEG3.1	2.53	0.91	47	0.35	-23.5	0.00	PoNeE10.4	2.67	0.94	51	0.19	-26.6	0.00
SEG3.2	2.53	0.91	45	0.42	-20.1	0.00	Redabi11.1	1.98	1.17	23.7	0.07	3.5	0.00
SEG3.3	2.48	0.91	41	0.46	-14.2	0.00	Redabi11.2	2.02	1.17	19.2	0.05	10.3	0.00
SEG3.4	2.52	0.92	0	0.00	57.9	0.00	GloT12.1	2.27	0.97	32	0.49	-3.1	0.00
SEG3.5	2.43	0.94	16	0.37	27.5	0.00	GraInf13.1	2.54	0.93	42	0.48	-14.2	0.00
RISK4.1	2.90	0.90	48	0.38	-16.9	0.00	Notes14.1	2.53	0.90	53	0.08	-34.7	0.00
RISK4.2	2.84	0.92	47	0.42	-16.2	0.00	ComInf15.1	2.63	0.88	53	0.08	-32.9	0.00
RISK4.3	2.76	0.97	13	0.36	38.9	0.00	ComInf15.2	2.66	0.90	1	0.08	60.8	0.00
FV5.1	2.30	1.01	0	0.45	48.2	0.00	ComInf15.3	2.73	0.88	50	0.32	-25.0	0.00
FV5.2	2.31	1.02	53	0.89	-34.3	0.00	ComInf15.4	2.56	0.91	3	0.18	54.4	0.00
FV5.3	2.61	0.91	49	0.43	-25.1	0.00	Ratio16.1	2.82	0.93	52	0.18	-25.1	0.00
FV5.4	2.70	0.85	31	0.47	8.9	0.00	TimliInf17.1	2.87	0.95	43	0.42	-8.3	0.00
CapS6.1	2.84	0.92	36	0.49	2.8	0.01	TimliInf17.2	2.53	1.11	30	0.50	5.0	0.00

First, consider that the means of perceived usefulness for all 54 sub-information items shown in Table 9-8 correspond to between 'useful' (2) and 'very useful' (3) on the 5-point Likert scale (cf. Section 7.5.8). In Table 9-9 I now show that within the 53 annual reports, 11 out of 54 sub-information items scored less or equal than 9% of total marks (i.e., $TQS \leq 5$ marks out of a maximum of 54 marks). This shows that a minimum of 48 companies in the sample did not disclose these 11 sub-information items. Noticeably, 5 of these relate to forward-looking information. This suggests that companies do not emphasise future-oriented information. Further, 26 companies obtained a TQS≤27, which means that less or equal than 50% of the total possible marks for 20 different sub-information items. Thus, 49% of the sample companies disclosed less or equal than 50% of all possible 54 sub-information items that I used to assess FRQ in my FRQ measurement index. Twenty-nine sub-information items scored more than 69% of the total marks. These 29 information items were disclosed by a minimum of 37 companies (70%) in the sample.

Table 9-9 – Frequency of actual disclosure levels of information ordered by different cut-off levels from 53 Sri Lankan annual reports published in 2018.

TQS_{2018}	**Number of sub-information items**	**Number of companies that do not disclose**
5 marks or less (≤9%=5/54 of total marks)	11	48=53-5 (91%=48/53)
27 marks or less (≤50%=27/54 of total arks)	20	26=53-27 (49%=26/53)
37 marks or less (≤69% of total marks)	25	16=53-37 (30%=16/53)
More than 37 marks (>69% of total marks)	29	**Number of companies disclosed** 37 (70%=37/53)

Testing H_{11}, a paired samples test was used to examine whether there is a statistically significant difference between the perceived usefulness of sub-information items and the actual disclosure level (measured usefulness) of those sub-information items. The results of the paired independent sample *t*-test are significant in terms of investors t (53) =35.903 (p=.000), lenders t

(53) =35.974 (p=.000), and overall (combining investors and lenders) t (53) =36.307 (p=.000). Therefore, the Null hypothesis was rejected in all cases. It indicates that there is a statistically significant difference between the measured usefulness of 54 information items used to assess FRQ and the perceived usefulness of those information items.

Table 9-10 shows the correlation between measured usefulness and perceived usefulness by total users (combining investors and lenders), lenders and investors. According to the results, there is no association between measured usefulness and the perceived usefulness of those information items with respect to investors and lenders individually or in total.

Table 9-10 – Correlation of perceived and actual relative quality score across all 54 sub-information items

		Measured usefulness	**Perceived usefulness – total**	**Perceived usefulness – lenders**
Perceived usefulness lenders and investors combined	Spearman's Correlation	.072		
	Sig. (2-tailed)	.607		
Perceived usefulness of lenders	Spearman's Correlation	.093	.959**	
	Sig. (2-tailed)	.505	.000	
Perceived usefulness of investors	Spearman's Correlation	.049	.958**	.851**
	Sig. (2-tailed)	.722	.000	.000
**. Correlation is significant at the 0.01 level (2-tailed). N= 54				

The above results show that there is a gap in the information required by the users and the disclosures of that information provided. This supports my findings in Section 9.3.1, which revealed that in 2018 all three models recorded 65%-67% of quality score. Further, as discussed in Section 7.5.2, this may have been one of the reasons to select annual report as the second important source of information to make investment and lending decisions.

However, it is important to note that there is a highly positive correlation between investors' and lenders' perceptions (r=.*851*, p=.000)) regarding the usefulness of the 54 information items. This finding supports my results discussed in Section 7.5.8, which revealed that there is no significant difference between investment and lending decisions in relation to the usefulness of 54 sub-information items.

9.4 Summary

This chapter discussed the application of my FRQ measurement index. In order to obtain numerical values for the FRQ, I have examined annual reports for a sample of 53 entities listed on the CSE in Sri Lanka for the years 2010, 2014, and 2018. This analysis responds to a number of SRQs which are associated with RQ3:

SRQ3.1: What is the level of FRQ of Sri Lankan entities?

- The average level of weighted (from Model 3) FRQ is 56% (2010), 61% (2014) and 66% (2018). All differences are statistically significant at 5%-level.

SRQ3.2: Has FRQ improved in Sri Lanka after adopting IFRS compared to the period before adoption?

- The results disclosed that FRQ statistically improved in the period after adopting IFRS compared to before adopting IFRS in Sri Lanka. Cohen's d effect size is medium between 2012 to 2014.

SRQ3.3: Has FRQ improved over time in Sri Lanka?

- Statistics showed that reporting quality had been statistically increased over the period from 2010 to 2018 with a strong effect size.
- Size of the firm and annual reports affects the level of FRQ of a firm.

In terms of additional analysis made relating to the above research, firstly, my results revealed that there is no difference between the users' perceived impact of IFRS and the measured impact of IFRS on FRQ in Sri Lanka questions (cf. Section 9.3.2.1). This supports the conclusion made in SRQ3.2, which identified that IFRS improve the quality of reporting in the context of Sri Lanka. Secondly, my results provide evidence that there is a statistically significant difference between the perceived usefulness of 54 sub-information items in my FRQ measurement index and the actual disclosure level (measured usefulness) of those information items presented by annual reports of Sri Lanka entities questions (cf. Section 9.3.2.2). This finding reveals an information gap between expected information by Sri Lankan users and the information disclosed by Sri Lankan entities.

Chapter 10

Summary and conclusions

10.1 Summary and discussion of key findings

The two objectives of this thesis are to develop an FRQ measurement index and to measure the FRQ of annual reports of Sri Lankan listed companies using the FRQ measurement index. The FRQ measurement index is developed based on QCs in terms of decision usefulness as per the IASB Conceptual Framework. The need for a QCs-based approach is, in the first place, due to the non-existence of a comprehensive measurement tool with which the IASB or any other analysing party would be able to numerically derive the degree to which an annual report complies with the postulated characteristics of decision-useful information. In the second place, the development of my FRQ measurement index is supported by the debate around different classification interpretations of QCs and the inconclusive results of the perceived importance of QCs by and for different user groups.

My work builds on the seminal work by Beest et al. (2009) and Braam & Beest (2013). Similarly to them, I searched the literature to identify measures that can be used to assess QCs. However, I differentiate my work compared to Beest et al. (2009) and Braam & Beest (2013) in several aspects. Firstly, I used a hierarchical measurement structure and identified 54 sub-information (measurable) items under 17 broad information dimensions under a decision usefulness theory paradigm. Secondly, the developed FRQ measurement indices are based on different literature research procedures which yielded quite distinct numbers of measures used. And thirdly, I investigate the relative contributions of QCs towards FRQ within (Models 1 and 2) and outside (Model 3) the classification guidelines provided by IASB Conceptual Framework.

I developed the FRQ measurement index through three steps (cf. Section 1.4). Firstly, I searched the literature for measures for the QCs and obtained 54 sub-information items that are identified under 17 information dimensions (cf. Chapter 3). The selection of information dimensions and sub-information items are validated through the second and third steps referring to investors and lenders from Sri Lanka. Secondly, I asked Sri Lankan investors (N=235) and lenders (N=214) to examine whether those measures are useful to make investment and lending decisions (cf. Chapter 7 and Appendix 1– Section D of the survey). Further, I examined whether decision usefulness varies between investment and lending decisions scenarios, that is, investors who buy, sell or hold equity or debt instruments and lenders who provide or settle loans and other forms of credit. The survey results indicated that investors and lenders agreed that all the information items are useful in making their respective decisions, which confirmed these to be valid measures of the QCs. Further, considering the two different decision roles, I found a statistically significant difference in the usefulness for only 6 out of 54 sub-information items, and the effect size for these 6 information items was small. Thirdly, the structural relationships between FRQ, the 6 QCs, the 17 information dimensions and the 54 sub-information items were statistically tested by confirmatory factor analysis using SmartPLS (cf. Chapter 8). The factor analysis results revealed that the 54 sub-information items are indeed measures of the 17 information dimensions, which in turn are associated with one of the 6 QCs. While the IASB assumes that the QCs are measures of FRQ in terms of decision usefulness, the standard-setting body is vague on explaining how the QCs affect FRQ within the context of their classification. Therefore, I considered the QC classification guidelines contained within the Conceptual Framework and form three possible combinations (Models 1, 2, and 3) of how the 6 QCs may affect the FRQ (cf. Chapter 8). These models were analysed within a hierarchical structural equation modelling framework using SmartPLS.

Model 1 was designed based on the idea that all 6 QCs are independent measures of FRQ. The results from structural equation modelling show that all 6 QCs make a statistically significant and direct contribution towards FRQ. Relevance and faithful representation produce higher relative contributions when compared to the enhancing QCs (timeliness, understandability, comparability and verifiability). Thus, considering the size of the associations between QCs and FRQ, the IASB classification of QCs into two categories, fundamental and enhancing, is warranted, albeit at an arbitrary cut-off. Model 2 was designed to test the classification of QCs as suggested by the IASB (2010) classification into fundamental and enhancing QCs. This model also indicated higher contributions by relevance and faithful representation towards FRQ than the enhancing QCs. The IASB classification, however, is silent on which fundamental QCs is enhanced by which enhancing QC. Model 2 allowed this issue to be tested. The results show that all enhancing QCs statistically significantly contribute to both relevance and faithful representation, and thus indirectly to FRQ, except for the association between timeliness and relevance. Because Models 1 and 2 are quite restrictive in the arrangement space of how the QCs may contribute towards FRQ, I designed Model 3 which is the most flexible model of the three in that both the direct and indirect relationships of the QCs to FRQ can be analysed. The main result from Model 3 is that understandability has the highest direct contribution from all 6 QCs to FRQ (which stands in contrast to the findings from the limited Models 1 and 2). This result aligns with i) Smith (1996) who stated that understandability is the most important QC, ii) Section 7.5.6 which obtained that Sri Lankan investors and lenders perceived understandability as the most important QC, and iii) the 1989 Conceptual Framework of IASC which recognised understandability as a principle QC. A further result from Model 3 is that all the direct and indirect relationships of the four enhancing QCs to FRQ are statistically significant except for the indirect contribution of timeliness to FRQ via relevance (the indirect contribution of timeliness to FRQ via faithful representation is marginally significant). The finding that enhancing QCs contribute directly and indirectly towards FRQ opens the debate about the

appropriateness of the 2010 and 2018 IASB 'fundamental' and 'enhancing' classification. Furthermore, the results suggest that timeliness has a fundamental rather than enhancing character, should the 'fundamental' express a direct and 'enhancing' an indirect contribution of a QC towards FRQ. This argument challenges the IASC (1989) Conceptual Framework, which recognised that timeliness has a constraining effect on relevance and reliable information, i.e., an indirect relationship.

In my thesis, I also investigated several secondary objectives (SRQ2.1 to SRQ 2.8) that supplement RQ1. These are all related to the examination of the decision usefulness of annual reports from the perspective of the surveyed Sri Lankan investors (N=235) and lenders (N=214). The relevant sections of the survey through I obtain the data for the following research tasks are in Sections B and C. The research questions are re-printed below for readers' convenience and followed by a more detailed discussion.

SRQ2.1: the frequency of using annual reports

SRQ2.2: the importance of various sources of information

SRQ2.3 and SRQ2.4: the usefulness and adequacy of the information

SRQ2.5: the importance of various sections of annual reports

SRQ2.6: the factors that restrict the use of annual reports

SRQ2.7: the importance of the QCs

SRQ2.8: the impact of IFRS on FRQ.

SRQ2.1: How often are annual reports used for investment and lending decisions?
Main finding: • *Response for 'frequently' (3) and 'always' (4) − investment decision-makers: 66% and lending decision-makers: 65% (measured on a 0 to 4, 5-point Likert scale).*

This question examines how frequently users use annual reports with regard to their investment and lending decisions. Recall that 'investors' ('lenders') and 'respondents to the survey who make investment (lending) decisions' are used interchangeably in this thesis. I observed that there is no significant difference between investors and lenders and how frequently they use annual reports for their investment and lending decisions. An average of two-thirds of both investors and lenders use annual reports for investment and lending decisions 'frequently' and 'always', which are the 2 highest possible responses on the 5-point Likert scale used in the survey. Less than 5% of investment and lending decision-makers did not use annual reports for their decision-making. On average, one-third of both user groups stated that they used annual reports 'always' for their decisions.

The only study available that relates to the frequency of using annual reports in Sri Lanka is De Zoysa & Rudkin (2010). Based on data collected in the year 2000, they report that on average, 48% of users stated that they used annual reports always/usually. Compared to my results, the frequency of use has increased over 18 years. Similarly, Mirshekary & Saudagaran (2005) found that 88% of users in Iran stated that they used annual reports always/usually. Both these studies are typical of the literature on the use of annual reports when it comes to sample selection: it is not the specific decision scenario that is being tested; rather, the surveys are submitted to mixed user groups which consist of a variety of job roles such as, managers, accountants, bank loan officers, stockbrokers, bank investment officers, institutional investors, auditors, tax officers and academics. The significant difference in frequency of using annual

reports is then assessed between the groups; however, these job roles may not always align with specific decision roles the IASB reporting framework is based on.

SRQ2.2: Is there a statistically significant difference between investors and lenders in how important [= great significance or value] they perceive various sources of information are for their decision-making? (The choices are shown in Section 7.5.2)
Main findings: • *Main information source for investment decisions: stock market publication; and for lending decision: direct communication with company management.* • *There is no statistical difference between investors and lenders in using the following information sources: 'company annual reports', 'personal knowledge about the company' and 'tips and rumours'.*

In 2nd and 3rd place of importance is the 'company annual report' and 'personal knowledge', respectively, for both investment and lending decisions. The literature, (e.g., Al-Razeen & Karbhari, 2007; Mirshekary & Saudagaran, 2005; Naser et al., 2003; De Zoysa & Rudkin, 2010) found that the annual report was the most important source of information for all the user groups in terms of job roles. Stainbank & Peebles (2006) also noted that 'annual reports' were the most important source of information for users as well as for preparers of financial statements. Al-Ajmi (2009) reported that the annual report was the primary source of information for both large and small investors in Bahrain. However, Abu-Nassar & Rutherford (1996) found that bank loan officers in Jordan use annual reports more than any of the other job roles investigated, while individual shareholders and academics are the two groups who use annual reports the least. Early studies, for example, Abdulla (1992), Anderson (1981) and Bartlett & Chandler (1997) also identified annual reports as the primary information source for investors. In contrast to those studies, I noted that 'stock market publications' are the primary information for the investment decisions whereas 'communication with the company management' is the

prime source of information for lending decisions. My findings are practically supported by the fact that the lenders are in a position to demand information they require directly from the clients rather than having to trust in general purpose financial reporting information or information from third-party sources. Naser et al. (2003) also confirmed that bank loan officers mostly rely on information from direct contacts with client companies and special publications rather than seeking information from annual reports.

Note that 'tips and rumours' and 'advice from friends' are the least important sources of information for both groups of respondents in my survey. Previous studies (e.g., Abu-Nassar & Rutherford, 1996; De Zoysa & Rudkin, 2010; Mirshekary & Saudagaran, 2005; Naser et al., 2003) also found that 'tips and rumours' and 'advice from a friend' are ranked as the least important information sources. It is unlikely that the respondents in my study, who have more than 8 years of experience, would trust information obtained through tips and rumours or from friends. Hence, this result is not surprising. Instead, what may be surprising is that the internet as a source of information for decision-making was selected by advisors in 5th position and for investors and lenders in 6th position. This provides evidence that, even though the companies are disclosing more information through their websites, users do not rely on that information and give it less important as a source of information for making their decisions.

There is a significant difference (α=1%) between investment and lending decisions with respect to 7 out of the 10 sources on the importance of information sources used by users, other than the 'annual reports'. The latter result is in line with Al-Ajmi (2009) and Mirshekary & Saudagaran (2005) who found that the annual report did not show a statistically significant difference as a source of information among the user groups. Generally, the result that the importance of annual reports to investment and lending decision-makers is not statistically

different is substantial because I do not need to develop separate FRQ measurement indices for lenders and investors.

SRQ2.3 and 2.4: Is there a statistically significant difference between investors and lenders in how they perceive the usefulness [= able to be used for decision-making] and adequacy [=sufficient or enough to decide] of information in annual reports to be for their decision-making?
Main findings: • *There is no statistical difference between investment decision-makers and lending decision-makers on the usefulness and adequacy of information in annual reports.* • *Accumulated response rates for 'useful' (2), 'very useful' (3) and 'extremely useful' (4): 92% for investment decision-makers, and 86% for lending decision-makers. (measured on a 0 to 4, 5-point Likert scale).* • *Accumulated response rates for 'adequate' (2), 'very much adequate' (3) and 'extremely adequate' (4): 71% for investment decision-makers, and 72% for lending decision-makers. (measured on a 0 to 4, 5-point Likert scale).*

Both respondent groups perceived that annual report information is useful in making investment and lending decisions. Supporting my findings, a study conducted by Naser et al. (2003) in Kuwait and Alattar & Al-Khater (2008) in Qatar on the usefulness of annual reports for investment decisions using different groups such as individual and institutional investors, bank loan officers, government officials, and financial analysts, revealed that all the parties agreed that annual reports were useful.

Both respondent groups perceived that annual report information is adequate to make investment and lending decisions. This finding is echoed in Streuly (1994), who reported 53% of individual investors (CFAs) in the USA stated that the information disclosed in annual reports is adequate for investment decisions. Also, Abu-Nassar & Rutherford (1996) stated that annual reports are adequate to different user needs in Jordan but differed from the findings of De Zoysa

& Rudkin (2010), that 75% of Sri Lankan users find annual reports inadequate or partially adequate for their decision-making. In my study, the same statistic records at below 30%. This shows a significant improvement of the adequacy of annual reports from 2000 to 2018 during which period Sri Lankan entities have also enlarged their annual report sizes which can hold more information to facilitate user decisions. On annual report length, I noticed that Sri Lankan annual reports in the sample which I use to assess FRQ in Sri Lanka doubled the number of pages from 2010 to 2018.

When the importance, usefulness, and adequacy of annual report information are compared with investments and lending decisions, the annual report information is more often reported as important than useful, and more useful than adequate. This result can be explained for annual reports are neither the only source of information nor the prime source of information for investment and lending decisions in Sri Lanka.

SRQ2.5: Is there a statistically significant difference between investors and lenders in how they perceive the usefulness of various sections in annual reports to be for their decision making?
Main findings: • *There is a difference between investment decision-makers and lending decision-makers with respect to the degree of usefulness for the information contained in the 'cash flow statement', 'chairman's report/directors' report', 'social responsibility report', 'segmental information' and 'statistical summary'.* • *83% of investment and 93% of lending decision-makers rated the 'income statement' as either 'useful' (2), 'very useful' (3) or 'extremely useful' (4) which is the highest score for any section from the annual report. (Measured on a 0 to 4, 5-point Likert scale).*

The income statement, balance sheet and cash flow statement are the three main sections considered as useful (highest average responses) by both investment and lending decision-makers

in Sri Lanka. Consistent with this result, prior studies (e.g., Al-Ajmi, 2009; Alattar & Al-Khater, 2008; Biswas & Bala, 2016) also concluded that the respective users surveyed considered the 'income statement' and 'balance sheet' as their main focus in annual reports. Further, I identified a statistically significant difference in the perceived usefulness for the following five sections of an annual report: 'cash flow statement', 'chairman's report/directors' report', 'social responsibility report', 'segmental information' and 'statistical summary'. For all but the 'cash flow statement', the lenders value usefulness higher than the investors. I also note that with respect to financial statement components, no other section than the cash flows statement showed a statistically significant difference. This result can be explained in that lenders consider liquidity and solvency important and thus will focus on the risks of recovering their debt which is typically assessed through cash flows of a business.

In summary, the financial statement components are the more important sections than other narrative reports of an annual report for investment as well as lending decisions. Even though none of the studies specifically focused on investment and lending decisions, prior studies (e.g., Abu-Nassar & Rutherford, 1996; Al-Razeen & Karbhari, 2004; Alattar & Al-Khater, 2008; De Zoysa & Rudkin, 2010; Ehalaiye et al., 2018; Mirshekary & Saudagaran, 2005) which used different user groups together, concluded that financial statement components are considered most important compared to other information in an annual report. On the other hand, the foremost intention of providing annual reports to users is to show the operational performance, financial position and the cash flows of a business depicted by components of financial statements which other narrative reports provide support. Notably, both the investment and lending decision-makers perceived the equity statement in sixth place (average response rate) and behind the 'audit report'; that is, third-party verifiability of the main components of financial statements is considered more useful, on average, than the information contained in the narrative reports.

SRQ2.6: Is there a statistically significant difference between investors and lenders in how they perceive the factors that restrict the use of annual reports?
Main findings: • *Both groups considered that the main problem that restricts the use of annual reports is 'delay in publishing annual reports with respect to year-end'.* • *There is no statistically significant difference between investment decision-makers and lending decision-makers with respect to responses for all the factors that restrict the use of annual reports.*

Besides the delay in publishing the annual reports, other important reasons that restrict the usefulness of annual reports for investors and lenders are the 'lack of simplicity in the contents and presentation of information' and the 'lack of adequate non-financial information'. These results suggest that adequacy of information provided in annual reports is considered a major problem. Supporting my results, Mirshekary & Saudagaran (2005) reported that delays in publishing annual reports, lack of reliability of the information and lack of adequate disclosure are the main concerns with corporate financial reports in Iran. Also, De Zoysa & Rudkin (2010) discussed that long delays in publishing many annual reports and a lack of availability of these reports to the general public are factors that restrict the use of annual reports.

SRQ2.7: What is the perceived importance of QCs for investment and lending decisions?
Main findings: • *There is no statistically significant difference between investment and lending decision-makers with respect to how they perceive the importance of QCs. The highest average importance rating is obtained for 'understandability'.* • *Both groups of the respondent rate at 93% or higher the importance of the various QCs to be either 'important' (2), 'very important' (3) or 'extremely important' (4). (Measured on a 0 to 4, 5-point Likert scale).*

The importance is high for all QCs and from both investment and lending decision perspectives. That is, 93% to 99% of all respondents in both groups ticked one of the top three

categories ‘important’ (2), ‘very important’ (3) or ‘extremely important’ (4) on the 5-point Likert scale. There were no statistically significant differences between the lenders’ and investors’ mean response rates for any of the QCs.

The ranking of QCs based on the mean response puts understandability as the most important QC for both groups, and relevance is considered the least important. Interestingly, neither relevance nor faithful representation was selected in the first two places, despite what might be expected since their classification is ‘fundamental’ in the current IASB Conceptual Framework. Timeliness also ranks ahead of the two fundamental QCs. The importance of timeliness was ranked as high by De Zoysa & Rudkin (2010), who revealed that publication delay was a major problem faced by the users of annual reports in Sri Lanka. Also, Smith (1996) showed that accounting practitioners considered timeliness the most important QC. The other ranking results find precedents in the literature: Tasios & Bekiaris (2012) examined the perception of Greek auditors who put relevance in fourth place while ranking faithful representation to be the most important QC.

Why would understandability rank the highest? This relates to the environmental context of a developing economy and the corresponding financial and English language literacy, as well as educational and experience levels of my respondents.[56] Smith (1996) showed that UK MBA students ranked understandability as the most important QC. Al-Ajmi (2009) observed that his mixed-group respondents identified that financial statements are difficult to understand. The IASC framework stated that “an essential ‘quality’ of the information provided in financial statements is that it is readily understandable by users…” (IASC, 1989, para. 25). Further, FASB (2008, pp. CON2-1) states that information cannot be useful to decision-makers who cannot

[56] Education First English Language Proficiency score shows that Sri Lanka is in the 78th place out of 100 non-English-speaking countries, showing low English proficiency. See https://www.ef.co.nz/epi/regions/asia/sri-lanka/

understand it, even though it may otherwise be relevant to a decision and be reliable. Thus, the number one ranking of understandability as the most important QC challenges the classification of QCs as fundamental and enhancing by the IASB.

A comparison is now warranted between the above importance rankings, which are directly observable results from the survey, with the implied results from my FRQ measurement index, i.e., obtained from the relative contributions (outer weights) of the QCs towards FRQ, as shown in Model 3. Table 10-1 shows that understandability was perceived by both the investors and lenders as the most important QCs for them to make decisions, and the same result is produced by relative contribution obtained from my FRQ measurement index.

Table 10-1 – Comparison between the ratings based on the perception of user groups and the actual contribution of each QCs to FRQ based on my FRQ measurement index.

Rank	**Rating based on the perception of user groups**		**Rating based on relative contribution (Model 3)**
	Investors	**Lenders**	
1	Understandability	Understandability	Understandability (0.214)
2	Timeliness	Verifiability	Comparability (0.198)
3	Faithful representation	Timeliness	Verifiability (0.197)
4	Comparability	Faithful representation	Relevance (0.135)
5	Verifiability	Comparability	Faithful representation (0.137)
6	Relevance	Relevance	Timeliness (0.119)

SRQ2.8: What is the perceived impact of IFRS adoption in Sri Lanka on i) how the QCs improved the information provided in annual reports, ii) the FRQ, iii) the usefulness of the narrative parts of annual reports, and iv) the usefulness of the financial statements?
Main findings: • *Both user groups rate the impact of IFRS to improve the individual QCs to be either 'agree' (3) and 'strongly agree' (4) in at least 62% of cases. (Measured on a 0 to 4, 5-point Likert scale).* • *Both user groups rate the impact of IFRS on the usefulness of the narrative parts of annual reports to be either 'agree' (3) and 'strongly agree' (4) in at least 70% of cases.* • *The combined response rate for 'agree' (3) and 'strongly agree' (4) to IFRS improved FRQ is 83% for investment decision-makers and 81% for lending decision-makers.* • *Both groups of respondents rate the impact of IFRS on the usefulness of the financial statements to be either 'agree' (3) and 'strongly agree' (4) in at least 80% of cases.* • *There is no statistically significant difference in the perception between investors and lenders regarding the impact of IFRS on all four of the following: i) how the QCs improved the information provided in annual reports, ii) the FRQ, iii) the usefulness of the narrative parts of annual reports, and iv) the usefulness of the financial statements.*

With this question, I intended to assess the transition strength between two reporting regimes: financial reporting before 2012 under the Sri Lankan Accounting Standards (SLASs) and mandatory IFRS adoption in 2012. Sri Lankan investors and lenders perceived that through IFRS adoption all individual QCs had improved the information contained in annual reports: the accumulated frequency of responses on 'agree' and 'strongly agree' by investors and lenders are consistently high at above 68% across all the questions. Based on the perception of investors and lenders, it was found that the financial reporting quality improved after the adoption of IFRS. In relation to individual QCs, investors stated relevance to be the most improved QC, and lenders stated that both relevance and faithful representation are the most improved QCs. However, both the investment and lending decision-makers agreed that timeliness is the least improved QC, which, given its importance, would suggest an area of focus to the disclosure enforcement arm.

The comparison between the responses for the impact of IFRS on financial statements versus other narrative reports shows that both user groups recognised that IFRS improved the former somewhat more. This result was expected because IFRS applies to financial statements and not the other narrative non-financial reporting. There is no statistically significant difference between the responses made by investors and lenders on the impact of IFRS adoption on any of the QCs and FRQ.

My results place on the pre-IFRS adoption side and concur with studies such as Kim, Liu, & Zheng (2012), Maines & Wahlen (2006) and Schipper & Vincent (2003) who found that financial statements prepared using IFRS offer more relevant information than local accounting standards. These results clarify Ball et al.'s (2003) challenge as to whether or not IFRS will lead to better quality disclosure, even though the principles-based regulation gives significant discretion to managers, particularly in the selection of accounting policy.

In relation to the improvement of individual QCs as measures for reporting quality, my findings concur at the level of an individual user perspective with Tasios & Bekiaris (2012) and Yurisandi & Puspitasari (2015) who proposed that IFRS adoption in Greece and Indonesia, respectively, improved the reporting quality through improved compliance with QCs. As further support to my findings, Bozkurt, Islamoglu, & Oz (2013) suggested that comprehensibility and reliability of financial statements increased following IFRS adoption in Turkey. Kythreotis (2014) showed that for several European Union countries, relevance increased in post-adoption of IFRS, while reliability remained unchanged. Agyei-Mensah (2013) studied the impact of IFRS in Ghana and concluded that IFRS had improved the reporting quality in post-adoption.

Another secondary objective with respect to RQ3 is to assess the FRQ of Sri Lankan annual reports with my FRQ measurement index, and herewith to test if FRQ has improved in the post-IFRS adoption period as compared with the pre-adoption period. In achieving this objective, I examined a sample (N=53) of annual reports of listed entities in Sri Lanka for the years 2010, 2014 and 2018.

SRQ3.1: What is the level of FRQ of annual reports disclosed by Sri Lankan entities?
Main finding: • *Sri Lankan entities record an average of 47% unweighted FRQ in 2010, rising to 55% in 2014 and to 62% in 2018.* • *Sri Lankan entities record an average weighted FRQ (based on Model 3) of 56% in 2010, rising to 61% in 2014 and to 66% in 2018.*

I calculated FRQ in two ways: unweighted, i.e., each QC contributes equally to FRQ, and weighted, i.e., the relative contributions of all QCs as per Model 3. The results are shown above. In all three years, it is notable that the unweighted FRQ values are lower than the weighted FRQ. The FRQ levels describe that on an average in 2010, Sri Lankan-listed entities disclosed half of the decision-useful information required by the investors and lenders, and in 2018 it was up to two-thirds. I identified that the total number of pages and size of the firm in terms of total assets and market capitalization positively correlates with the level of FRQ. The number of pages also shows a positive relationship to the size of the firm, since big companies produce larger annual reports with greater volume of information that supports to meet the information needs of investors and lenders. Previous studies (e.g., Beattie et al., 2004; Firth, 1979; Robb & Zarzeski, 2001) also found that large firms have a greater tendency to disclose more. In a Sri Lankan study, Nijam (2016) showed that firm size, measured by total assets, impacted on the perceived FRQ level of firms. Thus, my results suggest that large companies have more room to improve FRQ in comparison to small companies.

SRQ3.2: Has the FRQ improved in Sri Lanka in the period after adopting IFRS in 2012 when compared to before adopting IFRS?
Main findings: • *Relevance and understandability show a statistically significant increase in average quality scores between 2010 and 2014.* • *FRQ improved (statistically significant difference, and moderate effect size) in the period after adopting IFRS compared to before adopting IFRS, using the 2010 and 2014 annual reports.*

In support of the above results, I examined the improvement of FRQ during the post-adoption period of IFRS, i.e., between 2014 and 2018. The difference is also statistically significant, but only a small effect size was detected compared to the medium effect size for the 2010 and 2014 comparison. This result is supported by the perception of Sri Lankan investors and lenders when directly asked in the survey: they indicated that IFRS improved the FRQ, as well as QCs individually, compared to the FRQ under SLAS.

In contrast to the users' perception, the measured quality level of individual QCs such as faithful representation, timeliness, verifiability, and comparability have not statistically increased in the period after IFRS compared to the period before adopting IFRS. My findings reflect previous research (e.g., Agyei-Mensah, 2013; Bozkurt, Islamoglu, & Oz, 2013; Tasios & Bekiaris, 2012; Yurisandi & Puspitasari, 2015) which provided evidence that IFRS improved the quality of financial reporting. Nijam (2016) showed that finance and accounting professionals believed IFRS would improve FRQ in Sri Lanka. In contrast, Yasas & Perera (2019) found that the value relevance of accounting information has not improved in the post-IFRS adoption period compared to the pre-IFRS period in Sri Lanka. The results of those studies need be carefully interpreted because neither used a comprehensive FRQ measurement model.

SRQ3.3: Has FRQ improved in Sri Lanka over time?
Main finding: • *Sri Lankan entities improved unweighted FRQ by 33% and weighted FRQ by 20% over the period from 2010 to 2018.*

The average values for both weighted and unweighted FRQ indices have increased from 2010 to 2018. All indices, which are based on Model 3, show a statistically significant improvement in FRQ between 2010 and 2018 and a strong effect size. All the individual QCs also show an improvement over the period. The highest growth of the (unweighted) quality level in individual QCs was recorded for relevance (44%), and the lowest was recorded for verifiability (6%).

Additional analysis that supports the above findings, I examined the perceived usefulness for the 54 sub-information items by users against the disclosure level of those information items in 2018 annual reports by Sri Lankan entities. I identified a statistically significant difference between the perceived usefulness of sub-information items and the actual disclosure level (in terms of scores obtained by entities) in 53 out of 54 sub-information items in annual reports. I also noticed that, with respect to 24 sub-information items, the actual disclosure level is below the perceived usefulness level by users whereas the other 30 out of the 54 sub-information items show that the perceived usefulness levels by users are below the actual disclosure level. Thus, there is a gap between the information required by the users and the disclosure levels for that information. This expectation gap corresponds to the earlier result under SRQ3.1, which obtained 62% (unweighted) and 66% (weighted) FRQ in 2018. Although there is an improvement from earlier years, the two-third compliance level leaves ample room for improvements to financial reporting in the future. Furthermore, this gap may also explain why the annual report was not

considered the most important, but instead the second important source of information for investment and lending decision-makers (a result derived in SRQ2.2).

10.2 Conclusions and implications

Based on my findings from developing, validating and testing the FRQ measurement index and employing it to assess FRQ of a sample of Sri Lankan entities, I draw the following conclusions.

On a theoretical level, decision-useful theory applied to the context of financial reporting enquires about the provision of relevant information i) that is useful to make what decisions? and ii) to a particular decision-maker, i.e., useful to whom? I have documented in my thesis the various places at which the IASB Conceptual Framework refers to both of these questions directly (goal-setting). Perhaps the most obvious passages are those which reflect the IASB's objective that financial reporting under IFRSs would provide decision-useful information to investors and lenders. Little evidence for the practical validity from the goal-setting has been provided by the IASB or the academic literature, however. This is the research gap that my thesis is filling: through the process of developing, testing and validating the FRQ measurement index, I have found few instances in which the people who are experts in investment and lending decision-making disagree on i) the use, usefulness, importance or adequacy of the various types of information provided in annual reports, and ii) the role the QCs play in achieving the outcomes stated in i). Hence, the IASB's financial reporting standards, which are based on the QCs formulated within their conceptual framework, indeed provide decision-useful information to investors *and* lenders.

On a scientific measurement basis, my FRQ measurement index has unique characteristics. First, this index is the first index that triangulates users, their respective decisions, and QCs as features of useful information. Thus, my FRQ measurement index focuses on

decision usefulness theory and accounts for specific decision-making scenarios: buying, selling and holding debt or equity instruments for investors and providing loans and other forms of credits for lenders, as specified by the IASB Conceptual Framework. Secondly, I used confirmatory factor analysis using PLS-SEM to validate whether the 54 sub-information items factorise into 17 higher-level constructs and these then into the 6 QCs. Thirdly, my measurement index considers both the direct and the indirect (mediating) relationships of QCs to FRQ (cf. Model 3) using Structural Equation Modelling (SEM). By using SEM, instead of perhaps the widely adopted multi-variate linear regressions in accounting research, I apply advanced scientific modelling skills which allow me to calculate the relative contributions (weights) of each of the QCs towards FRQ.

In relation to the IASB conceptual framework and the postulated character of QCs therein, I tested the validity of both, the given and alternative relationships of QCs to FRQ. I found that enhancing QCs contribute not only to fundamental QCs but also directly to improve FRQ. Therefore, in assessing the quality of information based on QCs, my results suggest that future research should consider testing these direct (and indirect) relationships in other settings. With respect to the IASB Conceptual Framework, these findings are relevant in debates about the classification of QCs. I also conclude that both the investors and lenders perceived that understandability is the most important QC when they make their respective investment and lending decisions, ahead of the so-called fundamental QCs of relevance and faithful representation. Using my FRQ measurement index, I found that understandability provides the highest relative contribution to FRQ. Therefore, I have substantive evidence that understandability is the most important QC for Sri Lankan investors and lenders, which would then 'deserve' to be elevated to 'fundamental' status. Considering that the literature also found inconclusive results with respect to the importance of QCs, I suggest that when classifying QCs, it is important to consider the type of users as well as the type of decision scenarios. In summary,

classification of QCs into different and appropriate importance categories will depend on context, including the language, financial literacy, level of accounting education and experience levels of information users. Therefore, the classification of QCs could become merely a classical model which is not applicable in all reporting environments equally which for example will have an impact on accounting education, where students in different countries are drilled in financial accounting classes to learn the fundamental vs enhancing taxonomy.

On the practice of annual reports, in contrast to most of the previous findings that suggested that the annual reports are the prime source of information to users in making their decisions, I conclude that annual reports are not the primary source of information for either investors or lenders in Sri Lanka. Although users perceived that annual reports provide important information, comparatively to the level of importance, they are less useful and not providing adequate information to make their decisions. The comparatively low adequacy of information suggests the users need other sources of information, and qualify annual reports as a secondary source to them. Several reasons caused to limit the use of annual reports in Sri Lanka. First, as observed in my analysis of the usefulness of sub-information items that I used to assess QCs in my measurement index, I noted that some information items that are perceived as useful to make investment and lending decisions are not reported in annual reports, whereas some information items that are reported in the annual report are not considered useful by users. This suggests an information gap between the requirements of useful information and the disclosed information in annual reports. This gap may also explain why the annual report has not been considered the most important, but rather the second most important source of information for investment and lending decision-makers. Second, I noticed that the delay in publishing annual reports concerning year-end as another reason that limits the use of annual reports, and users perceived that timeliness was the least improved QC during the period after adopting IFRS in 2012 when compared to before adopting IFRS.

On the adoption of IFRS in Sri Lanka, I noted that the FRQ of Sri Lankan entities immediately after IFRS adoption in 2012 improved compared to the period before adopting IFRS. This was further supported by the findings that investors and lenders, when asked directly in the survey, perceived all the QCs, as well as FRQ, to have improved after adopting IFRS compared to the time when SLASs were used. Additionally, I examined the perception of users on the impact of IFRS on FRQ (perceived impact) and compared it with the measured FRQ depicted by annual reports of Sri Lankan entities (measured impact). I noted no gap exists between perceived and measured impact about FRQ. These findings allow me to conclude that IFRS has improved FRQ in Sri Lanka. Thus, I contribute to the existing literature addressing a gap relating to achieving IASB's IFRS objectives in a developing country context. In particular, my study merges the IASB's Conceptual Framework guidelines in assessing the aim of achieving IASB's objective of IFRS. This aim of IFRS raises the question of whether or not the widespread adoption of IFRS has indeed affected the quality of financial reports. Therefore, the current study, using a decision usefulness approach, provides evidence that Sri Lanka as a developing country which adopted IFRS as a result of international donor organizational pressure has improved quality of reporting after adopting IFRS.

The findings of my study may benefit the Chartered Accountants of Sri Lanka (CASL) and the Sri Lanka Accounting and Auditing Standards and Monitoring Board (SLAASMB) in assessing the quality of financial reports. The CASL could apply my FRQ index to assess the quality of annual reports presented by Sri Lankan entities in their annual report awarding competition. Additionally, SLAASMB could use my FRQ index in reviewing annual reports to examine whether the entities comply with QCs as recognised by the IASB. Also, my findings indicate to the CASL and the IASB that their objective of improving quality by implementing IFRS has been accomplished. The effects of mandatory adoption of IFRS in Sri Lanka that showed an improvement in the quality of reporting may be indicative to other countries' national

standard-setters, stakeholders and regulators, and demonstrate that the same outcome of increased reporting quality may be expected. Finally, my work on measuring 'quality' in light of specific decision-usefulness objectives gives the IASB a viable and accountable pathway when developing future reporting standards such as, for example, the recently suggested IFRS Foundation's sustainability reporting project which attempts to "… developing high-quality and consistent measurement and disclosure requirements" (IFRS Foundation, 2020, p. 9) and associated QCs for useful sustainability information (IFRS Foundation, 2020, p. 13), or the IASB's current approach to broaden corporate reporting towards an integrated reporting regime.

10.3 Limitations of the study

There are several limitations to my thesis: to the extent that was possible and practical, I also put in place some remedies to mitigate the impact of them on my findings and conclusions.

Firstly, there is the omitted variables problem: the 54 sub-information items which I have distilled from the literature to assess the QCs in my FRQ measurement index may not be a comprehensive array or universally accepted list in relation to investment and lending decisions. I have placed most attention to identifying as broad a base of variables as possible from the literature. To address this particular limitation, I used factor analysis to confirm that my selection of sub-information items indeed relates to investment and lending decision-making and that they measure the respective QCs.

Secondly, my 54 sub-information items are based on a universal literature search. However, a sample of Sri Lankan investors and lenders was used to validate the usefulness of the items and derived the relative contribution of QCs based on the responses of these users. Therefore, the findings are not generalizable since the level of usefulness of the sub-information

items might be different if a researcher applies them to another sample. Thus, the final selection of sub-information items for the FRQ measurement index and the relative contributions that are obtained as a result might vary.

Third, I only considered the top 100 companies based on market capitalization from the Colombo Stock Exchange and included 53 companies in the final sample. In my analysis concerning the level of FRQ, I noted that there is a positive impact of firm size to the level of FRQ. Therefore, expanding the sample to include small companies might alter the results.

The fourth limitation I can think of relates to the known issues in survey design, in particular 5-point Likert scales and the choice of wordings these ordinal scales are married with. The volume of explanations in the question and the response scale, and the survey response rate are negatively correlated, and I stand with the majority of social science researchers to rather have a higher response rate. For example, explanations could be included that would differentiate 'important', 'very important' and 'extremely important' for the myriad of interpretations, contexts and backgrounds a survey responded will have. To mitigate this problem, I informed the survey participants about the most crucial aspects and provided technical explanations about, for example, the definition of QCs. Another issue within the scope of survey design is long survey fatigue. Fatigue occurs when participants become tired or bored with answering questions. I checked for naïve answer patterns such as non-typical response patterns or high rate of part-completion of the survey, but did not notice any indication of long survey fatigue. Being aware of this potential problem during the design of the survey, I included the approximate time to complete the survey (15 to 20 minutes) in the cover letter and divided the survey into subsections using a re-freshening graphical arrangement of questions, such that long survey fatigue is minimised.

10.4 Future research

There are numerous avenues of how to extend the work done in this thesis:

- Study the impact of sub-features stated under each QC to FRQ, for example, confirmatory and predictive value as sub-features of relevance. Though my thesis considered the sub-features in identifying measures for QCs, I did not assess the impact of sub-features separately to FRQ. Therefore, future research could be used to focus on the impact of sub-features stated under each QCs to FRQ.
- Assess various inter-relationships (combinations) within the groups of enhancing or fundamental QCs, and alternatively, the inter-relationships outside the IASB 2-group classification context altogether. For example, does relevance enhance FRQ indirectly via understandability? What would the theoretical justifications be that one may base such testable hypotheses on?
- Test the FRQ measurement model developed in this study using another sample frame in another (country) context; or, in another related reporting sub-discipline such as Integrated Reporting to test whether the reporting quality would change within different jurisdictions, time intervals, or sectors.
- Examine how the FRQ measurement index can be employed as a tool for auditors' risk assessment procedures. For example, an audit firm may keep the FRQ scores of individual clients over time. If an unexpected drop in the FRQ metric was detected for a particular year, the size of such change might indicate audit effort.
- Conduct an exploratory study to examine why Sri Lankan entities' annual reports disclose fewer information items that are considered useful by users.

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APPENDICES

Appendix 1: Survey questionnaires

I designed three versions of the paper-based and online questionnaires, each of which included the same questions but with customised wordings to address the three groups of participants within their relevant decision-making scenarios: investors – buying, holding, or selling equity or debt instruments, lenders – granting loans or trade credit to customers, and advisors – advising clients with respect to buying, holding, or selling equity or debt instruments. Below I provide the questionnaire designed for investors. Other versions can be provided on request.

Survey questionnaire – Investors

Survey on information needs of annual reports users

The purpose of this survey is to identify the usefulness of the information contained in company annual reports that are required by investors, lenders, or financial advisors.

Section A

This part of the survey will ask about your demographic information.

---

1. I am

Male ☐ Female ☐

(Please tick (√) a box as applicable)

2. My age is….

(Please tick (√) a box as applicable)

☐ under 20 years ☐ 20-24 years

☐ 25-34 years ☐ 35-44 years ☐ 45-54 years ☐ 55 or older

3. I possess the following qualification/s

(Please tick (√) as many as applicable)

☐ none
☐ G.C.E (A/L)
☐ diploma
☐ bachelor's degree
☐ master's degree
☐ doctoral degree
☐ CA or CIMA (part-complete), MAAT
☐ CFA
☐ FCA/ACA
☐ ACCA / CMA/ CIMA / CPA membership
☐ DBF/DABF/AIB/FIB
☐ other (please specify):

4. I have the most experience in…

(Please tick (√) most appropriate box as applicable)

☐…making investment decisions with respect to buying, holding, or selling equity or debt instruments

☐…making lending decisions with respect to granting loans or trade credit to customers

☐…advising clients with respect to buying, holding, or selling equity or debt instruments

5. I gained the above experience in the following role:

(Please tick (√) most appropriate box as applicable)

☐ financial analyst
☐ financial consultant
☐ individual investor in shares
☐ stockbroker
☐ bank loan officer
☐ partner/manager in an audit firm
☐ accountant in a company
☐ employee of the government
☐ manager/executive in a company
☐ other (please specify):

6. How many years have you been in the above role?
(Please write the number of years in the box)

Section B

This part of the survey will ask about how you use annual reports.

---

7. How often do you use annual reports to support the following decisions?

(Please tick (√) as applicable)

(i) to buy, hold or sell equity or debt instruments

☐ never ☐ rarely ☐ sometimes ☐ frequently ☐ always ☐ not applicable to me

(ii) to advise clients on trading equity or debt instruments

☐ never ☐ rarely ☐ sometimes ☐ frequently ☐ always ☐ not applicable to me

Answer the following questions based on your experience in making investment decisions with respect to buying, holding, or selling equity or debt instruments.

8. How important are the following sources of information for you in forming an opinion that supports your investment decisions?

(Please tick (√) a box as applicable)

	not important	somewhat important	important	very important	extremely important
advice from a friend	☐	☐	☐	☐	☐
advisory services of accounting firms	☐	☐	☐	☐	☐
communication with company management	☐	☐	☐	☐	☐
company annual reports	☐	☐	☐	☐	☐
information provided on the internet	☐	☐	☐	☐	☐
newspaper articles and other media	☐	☐	☐	☐	☐
personal knowledge about the company	☐	☐	☐	☐	☐
stock market publications	☐	☐	☐	☐	☐
stockbroker's advice	☐	☐	☐	☐	☐
tips and rumours	☐	☐	☐	☐	☐
other (please specify):	☐	☐	☐	☐	☐

9. How useful[57] is the information typically contained in annual reports for you in forming an opinion that supports your investment decisions?

(Please tick (√) as applicable)

☐ not useful ☐ somewhat useful ☐ useful ☐ very useful ☐ extremely useful

10. How adequate[58] is the information typically contained in annual reports for you in forming an opinion that supports your investment decisions?

(Please tick (√) as applicable)

☐ not adequate ☐ somewhat adequate ☐ adequate ☐ very much adequate ☐ extremely adequate

11. How useful are the following parts of an annual report for you in forming an opinion that supports your investment decisions?

(Please tick (√) as applicable)

	not useful	**somewhat useful**	**useful**	**very useful**	**extremely useful**
• balance sheet/ statement of financial position	☐	☐	☐	☐	☐
• profit and loss account/income statement	☐	☐	☐	☐	☐
• cash flow statement	☐	☐	☐	☐	☐
• statements of changes in equity	☐	☐	☐	☐	☐
• notes to financial statements	☐	☐	☐	☐	☐
• accounting policies	☐	☐	☐	☐	☐
• statement of other comprehensive income	☐	☐	☐	☐	☐
• auditors' report	☐	☐	☐	☐	☐
• chairman's report/directors' report	☐	☐	☐	☐	☐
• management discussion and analysis	☐	☐	☐	☐	☐
• corporate governance report/information	☐	☐	☐	☐	☐
• social responsibility report/ information	☐	☐	☐	☐	☐
• segmental information	☐	☐	☐	☐	☐
• statistical summary	☐	☐	☐	☐	☐
• sustainability report	☐	☐	☐	☐	☐

12. What factors restrict your use of annual reports in forming an opinion that supports your investment decisions?

(Please tick (√) as many as applicable)

☐ access to annual reports

☐ delay in publishing annual reports with respect to year-end

☐ lack of adequate financial information

☐ lack of adequate non-financial information

☐ lack of reliability of non-financial information

☐ lack of reliability of financial information

☐ lack of simplicity in the contents and presentation of information

☐ other (please specify):

[57] able to be used for decision-making

[58] sufficient or enough for decision-making

Section C

This part of the survey will ask you to assess the importance of information in terms of the qualitative characteristics of useful information listed below.

Qualitative characteristics are the key features of financial information that makes it useful to users. According to the Conceptual Framework of Chartered Accountants of Sri Lanka, there are six qualitative characteristics of useful information. They are:

- **Relevance** – The information that is applicable to decision-making. Reported information is applicable only if it relates to the issues that are of prime concern to the users.

- **Faithful representation** – The information comprises all the necessary details, provided without bias, and without errors and omissions.

- **Comparability** – The quality of information that enables users to identify similarities and differences between two sets of economic phenomena. So, it discusses whether specific information can be compared with information relating to previous years, industry, or similar entities.

- **Verifiability** – The ability to confirm the information provided by the entity.

- **Timeliness** – Refers to whether the information is provided on time so that users can make decisions.

- **Understandability** – The quality that enables users to comprehend, interpret and use information.

Next two questions are related to the qualitative characteristics of useful information. You may refer back to the above descriptions that can be used to formulate your answers.

Answer the following questions with respect to your experience in making investment decisions.

13. <u>How important</u> are the following qualitative characteristics of financial information for you in forming an opinion that <u>supports your investment decisions</u> with respect to buying, holding, or selling equity or debt instruments?

(Please tick (√) as applicable)

	not important	**somewhat important**	**important**	**very important**	**extremely important**
• relevance	☐	☐	☐	☐	☐
• faithful representation	☐	☐	☐	☐	☐
• comparability	☐	☐	☐	☐	☐
• verifiability	☐	☐	☐	☐	☐
• timeliness	☐	☐	☐	☐	☐
• understandability	☐	☐	☐	☐	☐

14. This question will assess your perception of annual reports published by Sri Lankan listed entities <u>after</u> adopting International Financial Reporting Standards (IFRS) in 2012.

Below is a series of statements about the usefulness of annual reports' information. *(Please tick (√) as applicable)*

Compared to the previous (before 2012) Sri Lanka Accounting Standards (SLASs), IFRS has improved….	**strongly disagree**	**disagree**	**neither agree nor disagree**	**agree**	**strongly agree**
…the **relevance** of the information provided by annual reports	☐	☐	☐	☐	☐
…the **faithful representation** of information provided by annual reports	☐	☐	☐	☐	☐
…the **understandability** of information provided by annual reports	☐	☐	☐	☐	☐
…the **timeliness** of information provided by annual reports	☐	☐	☐	☐	☐
…the **comparability** of information provided by annual reports	☐	☐	☐	☐	☐
…the **verifiability** of the information provided by annual reports	☐	☐	☐	☐	☐
…the **usefulness of financial statements** of Sri Lankan companies	☐	☐	☐	☐	☐
…the **usefulness of narrative reports** [59] included in annual reports	☐	☐	☐	☐	☐
…the **quality of financial reporting** of Sri Lankan companies	☐	☐	☐	☐	☐

[59] Reports such as CSR report, corporate governance report, environmental report, directors report, CEO report etc. other than financial statement audit report, in annual reports

Section D

This part of the survey will ask you to assess the usefulness of information that could be included in annual reports of Sri Lankan companies.

15. How useful are the following information items for you in forming an opinion that supports your investment decisions with respect to buying, holding, or selling equity or debt instruments?

(Please tick (√) as applicable)

		not useful	somewhat useful	useful	very useful	extremely useful
Forward-looking information						
1.	Forward-looking information which helps to form expectations about the future of the company	☐	☐	☐	☐	☐
1.1	Forecasted growth in revenue	☐	☐	☐	☐	☐
1.2	Forecasted growth in profit	☐	☐	☐	☐	☐
1.3	Forecasted growth in earnings per share	☐	☐	☐	☐	☐
1.4	Forecasted growth in market price per share	☐	☐	☐	☐	☐
1.5	Future business opportunities	☐	☐	☐	☐	☐
1.6	Future strategies that are to be used to achieve either revenue or earnings targets	☐	☐	☐	☐	☐
1.7	Factors which influence the revenue or earnings targets	☐	☐	☐	☐	☐
1.8	Forecasted growth in dividends per share	☐	☐	☐	☐	☐
1.9	Information on future non-financial key-performance indicators	☐	☐	☐	☐	☐
Please note any other factor/s that you consider to be important in relation to forward-looking information						
1.10		☐	☐	☐	☐	☐
Cash flow information						
2.	Information about past and future cash flows	☐	☐	☐	☐	☐
2.1	Forecasted cash flows	☐	☐	☐	☐	☐
2.2	Past information on cash and cash equivalents	☐	☐	☐	☐	☐
2.3	Past cash flow comparatives more than one year	☐	☐	☐	☐	☐
2.4	Justifications/reasons for the changes of past cash flows (operating, investing, or financing cash flows)	☐	☐	☐	☐	☐
2.5	Information on segmental cash flows (product, sector or geographical wise classification)	☐	☐	☐	☐	☐
Please note any other factor/s that you consider to be important in relation to cash flow information						
2.6		☐	☐	☐	☐	☐

Segmental information		**not useful**	**somewhat useful**	**useful**	**very useful**	**extremely useful**
3	Segmental financial information (geographical, product, entity, or sector wise classification)	☐	☐	☐	☐	☐
3.1	Segmental information on revenue	☐	☐	☐	☐	☐
3.2	Comparative information on segmental revenue	☐	☐	☐	☐	☐
3.3	Segmental information on past profit	☐	☐	☐	☐	☐
3.4	Segmental profit forecasts	☐	☐	☐	☐	☐
3.5	Segmental non-financial key-performance indicators	☐	☐	☐	☐	☐
Please note any other factor/s that you consider to be important in relation to segmental information						
3.6		☐	☐	☐	☐	☐
Risk related information						
4	Information on risk relating to financial, market, economic, political concerns etc.	☐	☐	☐	☐	☐
4.1	Information on company risk profiles for the current year	☐	☐	☐	☐	☐
4.2	Disclosures of risk mitigation plans	☐	☐	☐	☐	☐
4.3	Comparisons of risk profiles with past year/s	☐	☐	☐	☐	☐
Please note any other factor/s that you consider to be important in relation to risk-related information						
4.4		☐	☐	☐	☐	☐
Measuring assets, liabilities, and equity						
5	Measurement methods for Assets, liabilities, and equity line items in annual reports are justified	☐	☐	☐	☐	☐
5.1	Assets, liabilities, and equity line items in annual reports are measured at historical cost	☐	☐	☐	☐	☐
5.2	Assets, liabilities, and equity line items in annual reports are measured at fair value	☐	☐	☐	☐	☐
5.3	Disclosures on the description of the valuation processes used for assets, liabilities, and equity items	☐	☐	☐	☐	☐
5.4	Information on changes in fair values of assets, liabilities, and equity items.	☐	☐	☐	☐	☐
Please note any other factor/s that you consider to be important in relation to measurement information on assets, liabilities, and equity						
5.5		☐	☐	☐	☐	☐

Capital structure		not useful	somewhat useful	useful	very useful	extremely useful
6	Information on the capital structure of the company (proportion of debt and equity that is used to finance assets)	☐	☐	☐	☐	☐
6.1	Explanations on gearing ratio (debt to equity) used by the company	☐	☐	☐	☐	☐
6.2	Comparative information on the change of capital structure	☐	☐	☐	☐	☐
6.3	Information on the breakdown of long-term debt	☐	☐	☐	☐	☐
Please note any other factor/s that you consider to be important in relation to financial structure information			☐	☐	☐	☐
6.4		☐	☐	☐	☐	☐
6.5		☐	☐	☐	☐	☐
Audit Report						
7	Providing an audit report for the financial statements	☐	☐	☐	☐	☐
7.1	A financial statement with unmodified audit opinion compared to modified audit opinion	☐	☐	☐	☐	☐
7.2	Providing independent third party assurance for narrative reports[60]	☐	☐	☐	☐	☐
7.3	Annual reports which have been audited by the global audit firms (Big-4[61] audit firms)	☐	☐	☐	☐	☐
Please note any other factor/s that you consider to be important in relation to audit report information						
7.4		☐	☐	☐	☐	☐
Accounting estimates and policies						
8	Providing valid arguments to support the decisions about accounting estimates and the selection of accounting policies	☐	☐	☐	☐	☐
8.1	Explanation for accounting policies selected	☐	☐	☐	☐	☐
8.2	The basis for making accounting estimates	☐	☐	☐	☐	☐
8.3	Explaining the limitations of making accounting estimates and selecting accounting policies	☐	☐	☐	☐	☐
8.4	The factors affecting the decisions on accounting estimates and the selection of accounting policies	☐	☐	☐	☐	☐
8.5	Explanations with respect to reasons for changes in accounting estimates and policies	☐	☐	☐	☐	☐

[60] Reports such as CSR report, corporate governance report, environmental report, directors report, CEO report etc. other than financial statement audit report, in annual reports

[61] EY, PwC, KPMG, Deloitte

		not useful	somewhat useful	useful	very useful	extremely useful
Please note any other factor/s that you consider to be important in relation to accounting estimates and selection of accounting policies						
8.6		☐	☐	☐	☐	☐
8.7		☐	☐	☐	☐	☐
Related party disclosures						
9	Information on related party transaction disclosures	☐	☐	☐	☐	☐
9.1	Providing an independent related party transactions review committee report	☐	☐	☐	☐	☐
Please note any other factor/s that you consider to be important in relation to related party transaction disclosures						
9.2		☐	☐	☐	☐	☐
9.3		☐	☐	☐	☐	☐
Self-reported positive and negative events						
10	Disclosures relating to both positive (good) and negative (bad) future events	☐	☐	☐	☐	☐
10.1	Information on past negative events	☐	☐	☐	☐	☐
10.2	Information on past positive events	☐	☐	☐	☐	☐
10.3	Expected future negative information	☐	☐	☐	☐	☐
10.4	Expected future positive information	☐	☐	☐	☐	☐
Please note any other factor/s that you consider to be important in relation to positive and negative events about the past and future of the entity						
10.5		☐	☐	☐	☐	☐
10.6		☐	☐	☐	☐	☐
Readability						
11	Readability[62] of annual reports	☐	☐	☐	☐	☐
11.1	Use of shorter sentences to explain information	☐	☐	☐	☐	☐
11.2	Use of non-technical terms (words) to explain information	☐	☐	☐	☐	☐
Please note any other factor/s that you consider to be important in relation readability of annual reports						
11.3		☐	☐	☐	☐	☐

[62] The quality of being easy or enjoyable to read

Glossary of terms		**not useful**	**somewhat useful**	**useful**	**very useful**	**extremely useful**
12	A glossary of terms provided in annual reports	☐	☐	☐	☐	☐
Please note any other factor/s that you consider to be important in relation to the glossary of terms						
12.1		☐	☐	☐	☐	☐
Graphical information						
13	Use of graphs, charts or tables to explain information	☐	☐	☐	☐	☐
13.1	Annual reports that contain infographics [63] to present information	☐	☐	☐	☐	☐
Please note any other factor/s that you consider to be important in relation to presenting graphs, charts and tables						
13.2		☐	☐	☐	☐	☐
Notes to financial statements						
14	Use of notes to explain the line items in the financial statements	☐	☐	☐	☐	☐
14.1	Level of details in the notes to financial statements	☐	☐	☐	☐	☐
Please note any other factor/s that you consider as important in relation to notes to financial statements						
14.2		☐	☐	☐	☐	☐
Comparative information						
15	Comparative financial information for more than one year in income statement and statement of financial position	☐	☐	☐	☐	☐
15.1	Discussion of comparative information relating to revenue and profit	☐	☐	☐	☐	☐
15.2	Comparison of firm's current year revenue and profit with the relevant forecasts made in the previous year	☐	☐	☐	☐	☐
15.3	Comparison of company information with industry and economic information	☐	☐	☐	☐	☐
15.4	Discussion on non-financial key performance indicators compared to last year	☐	☐	☐	☐	☐
Please note any other factor/s that you consider to be important in relation to comparative information						
15.5		☐	☐	☐	☐	☐

[63] i.e., graphic visual representations of information, data or knowledge intended to present information quickly and clearly

Financial ratios		**not useful**	**somewhat useful**	**useful**	**very useful**	**extremely useful**
16	Providing financial index numbers and financial ratios	☐	☐	☐	☐	☐
16.1	Information relating to an analysis of financial position and performance using ratios	☐	☐	☐	☐	☐
Please note any other factor/s that you consider to be important in relation to presentation of ratios		☐	☐	☐	☐	☐
16.2		☐	☐	☐	☐	☐
Timely publishing of annual reports						
17	Annual reports finalised and published within a shorter period (within three months after financial year-end)	☐	☐	☐	☐	☐
17.1	Annual reports audited and finalised before three months after financial year-end	☐	☐	☐	☐	☐
17.2	Annual reports published before three months to financial year-end	☐	☐	☐	☐	☐
Please note any other factor/s that you consider to be important in relation to presenting annual reports timely to users						
17.3		☐	☐	☐	☐	☐

……..Thank you for completing this survey…….

……...

Prize Draw

You are entitled to **voluntarily** go in the draw to win **one of the three gift vouchers** to the value of **LKR.25,000** each.

You have been directed to this part to ensure your personal email is stored and used separately from the original survey. This ensures your emails are kept confidential and anonymous. The prize will be drawn at the end of February 2019, and the winners will be notified shortly thereafter. All emails will be deleted upon the prize winner being notified.
If you wish to go to the prize draw, please **enter your email** below.
Email

……....

Would you like to receive a copy of a summary of the survey results to your E-mail?

Yes ☐ Email (If not provided above)

No ☐

……....

Appendix 2: Human Ethics Committee approval letter

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

HUMAN ETHICS COMMITTEE

Secretary, Rebecca Robinson
Telephone: +64 03 369 4588, Extn 94588
Email: human-ethics@canterbury.ac.nz

Ref: HEC 2018/51/LR-PS

28 November 2018

Rathnayake Mudiyanselage Saman Bandara
Accounting and Information Systems
UNIVERSITY OF CANTERBURY

Dear Rathnayake

Thank you for submitting your low risk application to the Human Ethics Committee for the research proposal titled "Does the Adoption of IFRS Improve Financial Reporting Quality in Sri Lanka?".

I am pleased to advise that this application has been reviewed and approved.

Please note that this approval is subject to the incorporation of the amendments you have provided in your email of 19th November 2018.

With best wishes for your project.

Yours sincerely

pp. R. Robinson

Professor Jane Maidment
Chair, Human Ethics Committee

F E S

Appendix 3: Comparison of measures used by Beest et al. (2009) and Braam & Beest (2013)

The table below provides a comparison of the elements in the FRQ measurement indices suggested by Beest et al. (2009) and Braam & Beest (2013). The last column contains the corresponding Information Dimensions (ID) and Sub-Information Items (SII) used in my FRQ measurement index. The matching shown here has been done ex-post, i.e., the IDs and SIIs in my FRQ index have been justified through a literature search on the factors that influence QCs – they were not adopted. For those items in the Beest et al. (2009) and Braam & Beest (2013) FRQ measurement indices where there is neither an associated ID nor SII suggests that I did not find in the literature strong evidence that such information was associated with measuring QCs.

Beest et al. (2009)	**Braam & Beest (2013)**	**Corresponding Information Dimensions (ID) or Sub-Information Items (SII) in my FRQ measurement index**	
Relevance			
The company uses fair value as measurement basis	To what extent does the company use fair value instead of historical cost?	SII	Assets, liabilities, and equity line items in annual reports are measured at fair value
The annual reports disclose forward-looking information	To what extent does the annual report contain forward-looking information?	ID	Annual reports contain Forward-looking information which helps to form expectations about the future of the company
The annual reports disclose information in terms of business opportunities and risks	To what extent does the presence of non-financial information in terms of business opportunities and risks complement the financial information?	ID	Annual reports contain Information on risk relating to financial, market, economic, political concerns etc.
	To what extent does the risk section provide good insights into the risk profile of the company?		
The annual report provides feedback information on how various market events and significant transactions affected the company	---		---
---	To what extent does the annual report contain information on CSR?		---
---	To what extent does the annual report contain a proper disclosure of the extraordinary gains and losses?		---
---	To what extent does the annual report contain information regarding personnel policies?		---
---	To what extent does the annual report contain information concerning divisions?		---
---	To what extent does the annual report contain an analysis concerning cash flows?	ID	Annual reports contain information about past and future cash flows
---	To what extent are the intangible assets disclosed?		---
---	To what extent are the “off-balance” activities disclosed?		---

---	To what extent is the financial structure disclosed?	ID	Annual reports contain information on the capital structure of the company (proportion of debt and equity that is used to finance assets)
---	To what extent does the annual report contain information concerning the companies' going concern?		---
---	---	ID	Annual reports contain Segmental financial information*
Faithful representation			
The annual report explains the assumptions and estimates made clearly	To what extent are valid arguments provided to support the decision for certain assumptions and estimates in the annual report?	ID	Annual reports contain Providing valid arguments to support the decisions about accounting estimates and the selection of accounting policies
The annual report explains the choice of accounting principles clearly	To what extent does the company base its choice for certain accounting principles on valid arguments?	SII SII	The explanation for accounting policies selected The basis for making accounting estimates
The annual report includes an unmodified auditor's report	Which type of auditors' report is included in the annual report?	ID	Annual reports Providing an audit report for the financial statements (used to measure verifiability)
The annual report extensively discloses information on corporate governance issues	To what extent does the company provide information on corporate governance?		---
---	To what extent does the annual report contain disclosure concerning the "comply or explain" application?		---
The annual report highlights the positive and negative events in a balanced way when discussing the annual results	To what extent does the annual report contain disclosure related to both positive and negative contingencies?	ID	Annual reports contain Disclosures relating to both positive (good) and negative (bad) future events
---	To what extent does the annual report contain information concerning bonuses of the board of directors?		---
---	---	ID	Annual reports contain Information on related party transaction disclosures*
Understandability			
The annual report is a well organized	To what extent is the annual report presented in a well-organized manner?		---
Graphs and tables clarify the information presented	To what extent does the presence of graphs and tables clarify the presented information?	ID	Use of graphs, charts or tables to explain information
The use of language and technical jargon is easy to follow in the annual report	To what extent does the annual report contain technical jargon in the perception of the researcher?	SII	Use of non-technical terms (words) to explain information

The annual report included a comprehensive glossary	What is the size of the glossary?	ID	A glossary of terms provided in annual reports
The notes to the balance sheet and the income statement are clear	---	ID	Use of notes to explain the line items in the financial statements
---	To what extent does the annual report contain information concerning mission and strategy?		---
---	To what extent is the annual report understandable in the perception of the researcher?		---
---	---	ID	Readability of annual reports*
Comparability			
The notes to changes in accounting policies explain the implications of the change	To what extent are changes in accounting policies disclosed?	SII	Explanations with respect to reasons for changes in accounting estimates and policies
The notes to revisions in accounting estimates and judgments explain the implications of the revision	To what extent are changes in accounting estimates disclosed?		
The company's previous accounting period's figures are adjusted for the effect of the implementation of a change in accounting policy or revisions in accounting estimates	To what extent does the annual report contain information concerning comparison and effects of accounting policy changes?		---
The annual report presents financial index numbers and ratios	To what extent does the company present financial index numbers and ratios in the annual report?	ID	Annual reports Providing financial index numbers and financial ratios
The results of the current accounting period are compared with results in previous accounting periods	---	ID	Annual reports contain comparative financial information for more than one year in income statement and statement of financial position
Information in the annual report is comparable to information provided by other organizations	---	SII	Comparison of company information with industry and economic information
---	To what extent does the annual report contain information concerning companies' shares?		---
---	To what extent does the annual report contain benchmark information concerning competitors?		---
Timeliness			
Natural logarithm of the amount of days it took for the auditor signed the auditors' report after book-year end	How many days did it take for the auditor to sign the auditors' report after book-year end?	ID	Annual reports finalised and published within a shorter period (three months after financial year-end)

*new main information dimensions added in my FRQ measurement index.